Textile Industries

SEPTEMBER, 1952

formerly COTTON Textile Industries

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Serving the Great Names in Textiles

Pepperell Manufacturing Company
Pepperell, Ala.
Alabama Mills
American Bemberg Corporation
Cabin Crafts, Inc.
Chicopee Manufacturing Co.
Cluett, Peabody & Co., Inc.
Crompton & Co.
Crystal Springs Bleachery
Davenport Hosiery Mills
Dixie Mercerizing Co.
Goodyear Tire and Rubber Co.
Marshall Field & Co., Inc.
Mt. Vernon-Woodberry Mills, Inc.
Muscogee Manufacturing Co.
Peerless Woolen Mills
Standard-Coosa-Thatcher Co.
Swift Spinning Mills
The B. F. Goodrich Co.
The Springs Cotton Mills
Thomaston Mills
United Merchants & Manufacturers, Inc.
West Point Manufacturing Co.

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Among the Leaders

One of the leading textile companies served by Robert and Company Associates in the past 36 years is the Pepperell Manufacturing Company. In 18 years, we have completed 62 projects for Pepperell . . . including the designing of the modern bleachery and finishing plant at Pepperell, Alabama. This plant includes a steam generating plant and a filtration plant with a daily capacity of three million gallons.

Robert and Company's complete staff of 250 is especially qualified to provide layouts and designs for all types of projects related to the textile industry.

Our on-the-spot knowledge of the South will help you from the start to speed completion of your Southern building program.

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Textile Engineering Division

ATLANTA

COMMERCIAL FACTORS CORPORATION

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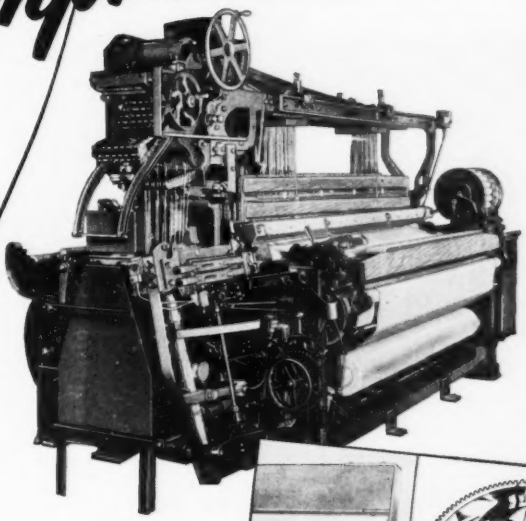
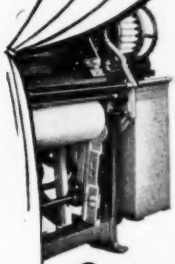
EUGENE G. LYNCH, 80 FEDERAL STREET, BOSTON 10, MASS.
T. HOLT HAYWOOD, WINSTON-SALEM, NORTH CAROLINA

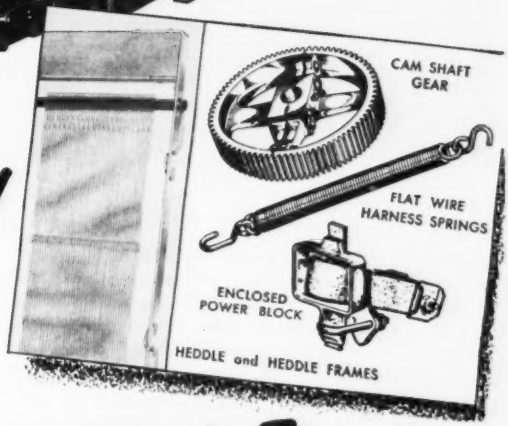
TEXTILE INDUSTRIES is published monthly at 116 E. Crawford St., Dalton, Ga., by W. R. C. Smith Publishing Company, Dalton and Atlanta, Ga., U. S. A. Executive and Editorial Offices, 806 Peachtree St., Atlanta 5, Ga.
Subscription Rates, United States and Possessions, $2.00 for one year; Canada, South America, Central America, $2.00 per year; Foreign Countries, $5.00 per year.
Entered as second class matter at the post office, Dalton, Georgia, under the Act of March 3, 1879.
Volume 116 Number 9

DRAPER'S aim to Build Better Looms
to Produce **MORE CLOTH** at **LESS COST**
has again resulted in –

3 Improved Looms







See and Compare!

DRAPER'S Improved Looms,
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Booths 132 – 133 – 134 at the

17th Southern Textile Exposition

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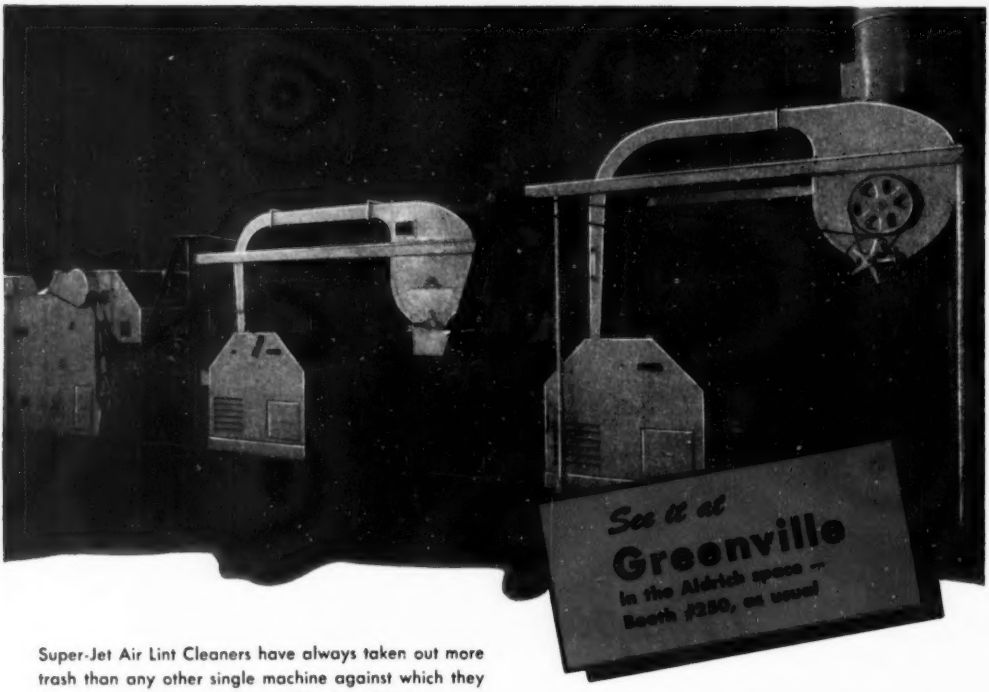
Air cleaning eliminates injurious beating
Costs no more than single Super-Jet System
Occupies same floor space as single system
Sharply increases spinning value of the lint



Super-Jet Air Lint Cleaners have always taken out more trash than any other single machine against which they have been tested. Now we offer the Aldrich-Lummus Tandem Super-Jet System, which removes up to twice the trash . . . and does it by air—minimizing the beating.

The Tandem Super-Jet produces a lofty, fluffy, finely divided sheet of cotton, amazingly free of neps, almost completely free of the trash which has been so much concern to spinners lately.

See this newest Aldrich-Lummus development at Greenville, or ask where you may see it in actual operation in a mill. You will find it the answer to your trashy cotton problem — giving you smooth spinning even of machine-picked lint.

For details, write Aldrich Machine Works.

Made by **LUMMUS COTTON GIN CO.**
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ALDRICH MACHINE WORKS
Greenwood, S. C.

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Textile Industries
COTTON

Volume 116, Number 9
September, 1952

John C. Cook, *Bus. Mgr.*

John C. Fonville, *Editor*

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Editorial and Executive Offices: 806 Peachtree St., N. E., Atlanta 5, Georgia

For names and addresses of editorial and business representatives, see page 269

On OWENS-CORNING Flyer Twisters...

"There's No More Downtime Due to Faulty Lubrication

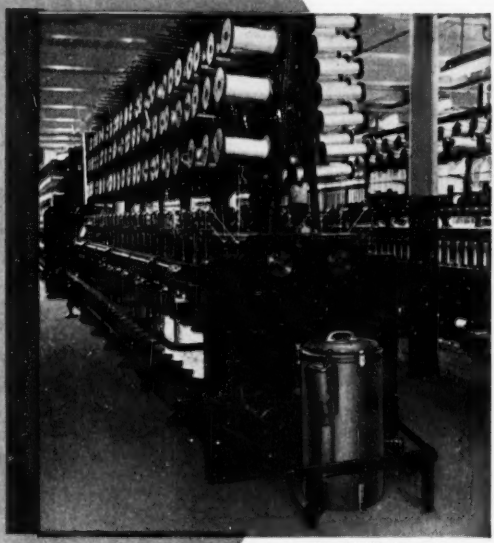
Thanks to *Lincoln* Centralized Lubrication Systems"

E. Bay, Chief Engineer
Owens-Corning Fiberglas Corp.

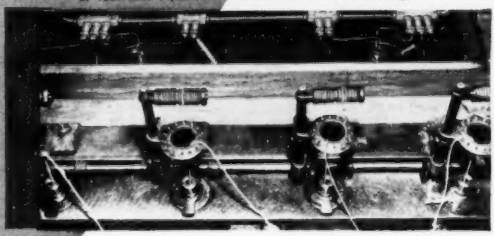
"As a result of the use of Lincoln Centralized Lubrication System on high-speed textile flyers, twisting yarns in our Ashton plant, there has been no loss of production due to improper lubrication. We find Lincoln's Centralized Lubrication System very reliable, since it is fully automatic.

"We also would like to state our satisfaction in the interest shown by the engineers of the Lincoln Engineering Company in helping us with our lubrication problems."

E. Bay, Chief Engineer
Owens-Corning Fiberglas Corp.



1. Lincoln CentrOmatic Pump serving the distribution system of lubricant injectors connected to machine bearings.



2. Lubricant injectors, one for each bearing, permanently attached to bearings by steel feed lines.

IN ONE MILL AFTER ANOTHER, Lincoln Centralized Lubrication Systems are helping to increase yield and reduce operating costs from existing facilities by assuring the application of

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Automatically

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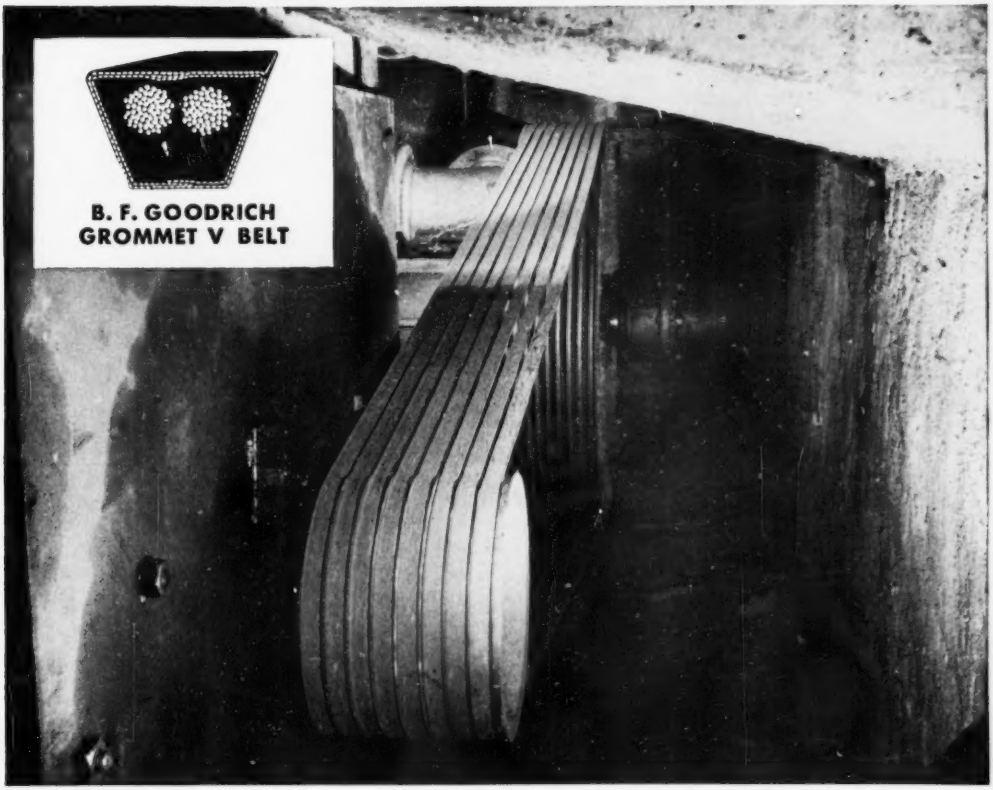
St. Louis 20, Missouri

You are cordially invited to see Lincoln's Centralized lubrication Systems at Booth 510, Textile Hall, Greenville, South Carolina.

RESEARCH KEEPS **B.F.Goodrich** FIRST IN RUBBER



B.F.Goodrich grommet belts saved $250.00 a year

B. F. Goodrich grommet V belts cut costs 20 to 50%

THESE belts have to run 24 hours a day under terrific tension. Ordinary V belts used to snap in two, fly off this drive in only 4 months. In September 1950, B. F. Goodrich grommet belts were installed. They have already lasted 4 times as long as previous belts, still look good, and are saving over $250.00 a year in replacement costs. Here's why B. F. Goodrich grommet belts can be counted on to save on belt costs:

No cord ends—A grommet is endless, made by winding heavy cord on itself to form an endless loop. It has no overlapping ends. Because most of the failures in ordinary V belts occur in the region where cords overlap, the endless cord section in a grommet V belt eliminates such failures.

Concentrated cord strength — All of the cord material in a B. F. Goodrich grommet multiple-V belt is *concentrated* in twin grommets, positioned close to the driving faces of the pulley. No layers of cords to rub against one another and generate heat; cord and adhesion failures are reduced.

Better grip, less slip — Because a grommet is endless, a grommet V belt is more flexible, grips the pulleys better. Size for size, grommet multiple-V belts will give ⅓ more gripping power, pull heavier loads with a higher safety factor.

Only B. F. Goodrich has the grommet!—No other multiple-V belt is a grommet V belt (U. S. Patent No. 2,233,294). Now available in C, D and E sections. See your local B. F. Goodrich distributor. *The B. F. Goodrich Company, Industrial & General Products Division, Akron, Ohio.*

Grommet V Belts BY

B.F.Goodrich

RUBBER FOR INDUSTRY

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THE 1,352 SACO-LOWELL COMBERS. installed in the U. S. as of January 1, 1952, producing at the average rate of 40 pounds per hour have a total capacity of 54,080 pounds per hour which is 76.6% *of the total COMBED YARN produced in the country!*

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American Thread Company
American Yarn & Processing Co.
Ameskeag-Lawrence Co.
Aragon Baldwin Mills
Div. of J. P. Stevens & Co., Inc.
Avery Process Corp.
Bachmann Uxbridge Worsted Co.
Bates Mfg. Co.
Bear Brand Hosiery Co.
Berkshire Fine Spinning Co.
Bibb Mfg. Co.
Richard Borden Mfg. Co.
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Cannon Mills Company
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China Grove Cotton Mills
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School of Textiles
Clover Spinning Co.
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Cross Cotton Mills Co.
Dana Warp Mills
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Dixie Mercerizing Co.
Dominion Textile Co.
Dora Yarn Mills Co.
Dover Mills Co.
Drayton Mills
Effrd Mfg. Co.
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Falls Mfg. Co.
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Gastonia Combed Yarn Corp.
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Harden Manufacturing Co.
Hart Cotton Mills, Inc.
Hartsville Cotton Mills
Haosac Mills Corp.
Hudson Cotton Mfg. Co.
Ivey Weavers, Inc.
Jewel Cotton Mills
Joanna Cotton Mills Co.
A. D. Juilliard & Co.
Lily Mills Co.
Lovknit Mfg. Co.
Martha Mills
Textile Div. of B. F. Goodrich Co.
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McCormick Spinning Mill, Inc.
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Newberry Mills, Inc.
New Braunfels Textile Mills, Inc.
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Pepperell Mfg. Co.
Republic Cotton Mills, Mill No. 2
Div. of J. P. Stevens & Co., Inc.
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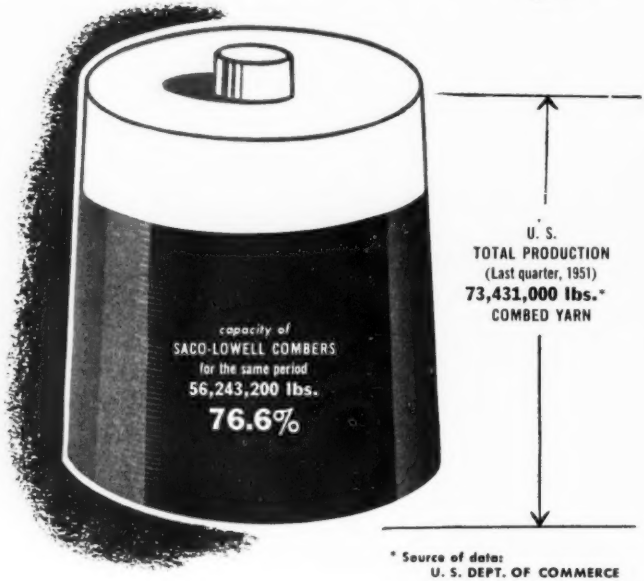
Rockfish-Mebane Yarn Mills, Inc.
Royal Cotton Mill Co.
Russell Mfg. Co.
A. M. Smyre Manufacturing Co.
Springs Cotton Mills
Standard Knitting Mills, Mill No. 1
Superior Yarn Mills
Swift Spinning Mills
Textron, Inc.
Textiles, Inc.
Thomaston Mills
Trenton Cotton Mills
United Merchants & Mfrs.
Utica & Mohawk Cotton Mills, Inc.
Wabasso Cotton Mills
Warwick Mills
Watatic Spinning Mills Inc.
Wauregon Mills Inc.
Wonalancet Co.
York Knitting Mills,
York Spinning Div.



* Source of data:
U. S. DEPT. OF COMMERCE

U. S. production 73,431,000 pounds; if produced on a 2-shift basis, the hourly production is 70,607 pounds. SACO-LOWELL Combers' hourly capacity of 54,080 is 76.6%.

For mills operating obsolete combing processes, our engineers will be glad to prepare an analysis containing a forecast of the savings, improvements in quality, and other advantages attained with the use of modern Saco-Lowell high-duty combing equipment.

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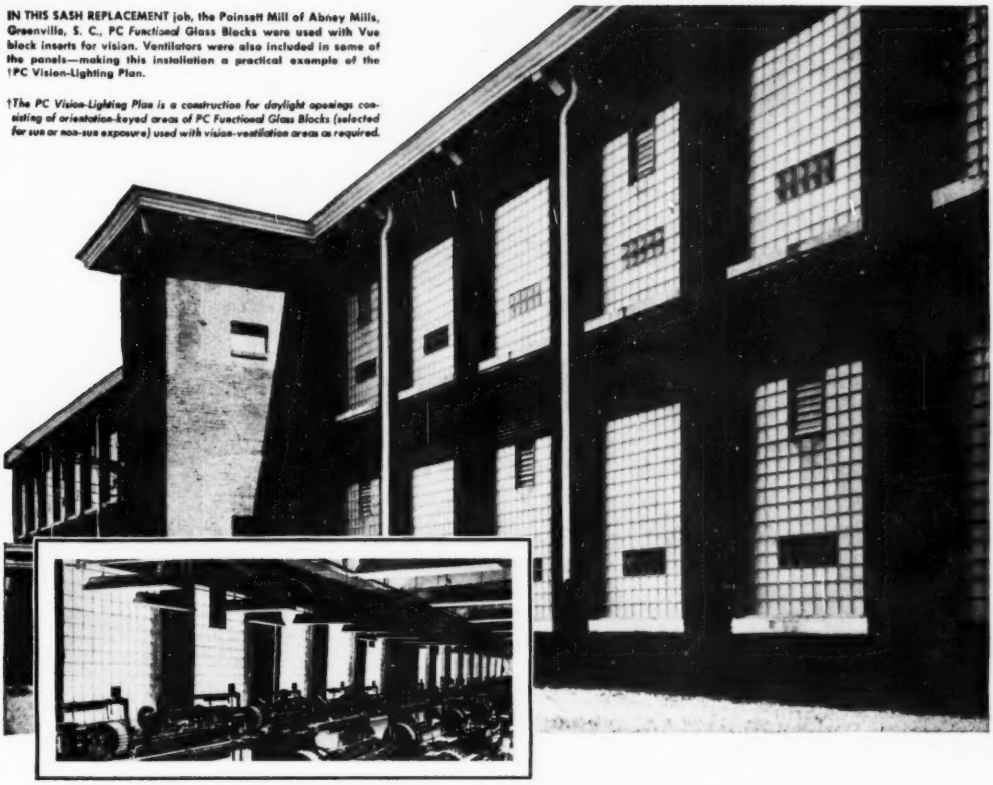
IN THIS SASH REPLACEMENT job, the Poinsett Mill of Abney Mills, Greenville, S. C., PC *Functional* Glass Blocks were used with Vue block inserts for vision. Ventilators were also included in some of the panels—making this installation a practical example of the †PC Vision-Lighting Plan.

†The PC Vision-Lighting Plan is a construction for daylight openings consisting of orientation-keyed areas of PC Functional Glass Blocks (selected for sun or non-sun exposure) used with vision-ventilation areas as required.



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. . . with PC Glass Blocks for sash replacement

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the fiber with the *well-balanced* performance characteristics

In an age of specialization, it is natural enough that many new textile fibers are developed, specifically to excel in some one special way.

Yet for most applications—for most end uses—the best fabrics require high *average* performance in many respects.

That is the essence of acetate's success in the textile field. It is an excellent fiber in each respect. For instance, acetate has:

- **good dimensional stability**
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- **excellent wrinkle recovery**
- **resistance to moths and mildew**
- **thermoplasticity for pleats and moires**
- **uniformly good supply**
- **a very competitive price**

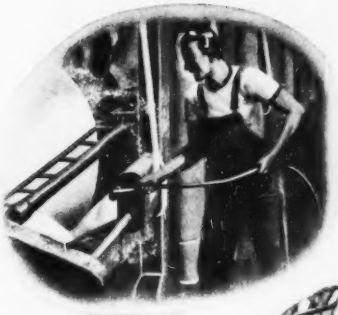
And acetate's outstanding asset . . . its ability to enhance the beauty of any fabric in which it is used.

So in designing new fabrics and planning production—whether it be shantung type suitings, light weight cords, or dress crepes—consider all the performance angles, and see if acetate doesn't come closest to filling the bill.

Celanese Corporation of America, New York 16.

Celanese*

*Reg. U. S. Pat. Off. **ACETATE, one of the world's great textile fibers**



Check Your Hose Needs–

and answer most of them with

GOODYEAR INDUSTRIAL RUBBER PRODUCTS
GTM-Specified ORTAC HOSE
for Universal Use
A
B
C
A Cover resists weather, oil, sun, abrasion.
B Braids of high-strength rayon cord.
C Synthetic tube resists gasoline, oils, distillates and alkalies.
ORTAC (Oil Resistant Tube and Cover) hose is available in sizes from 3/16" to 1½" in long, continuous lengths. Factory application of couplings if desired.

ORTAC

GOODYEAR'S ORTAC hose (Oil Resistant Tube and Cover) simplifies your hose-buying problems. For this *one construction* was designed by the G.T.M.—Goodyear Technical Man — to perform *many* assignments.

ORTAC will handle gasolines, fuel oils and distillates. It resists attack from alkalies, as well as the contaminants found in water. Excellent, too, for air and spray service. Its cover resists sun, weather and wear — ORTAC has a tube which will not flake, swell or discolor. Available in long, continuous lengths.

Ask your nearest distributor for full details on ORTAC — or write Goodyear, Akron 16, Ohio.

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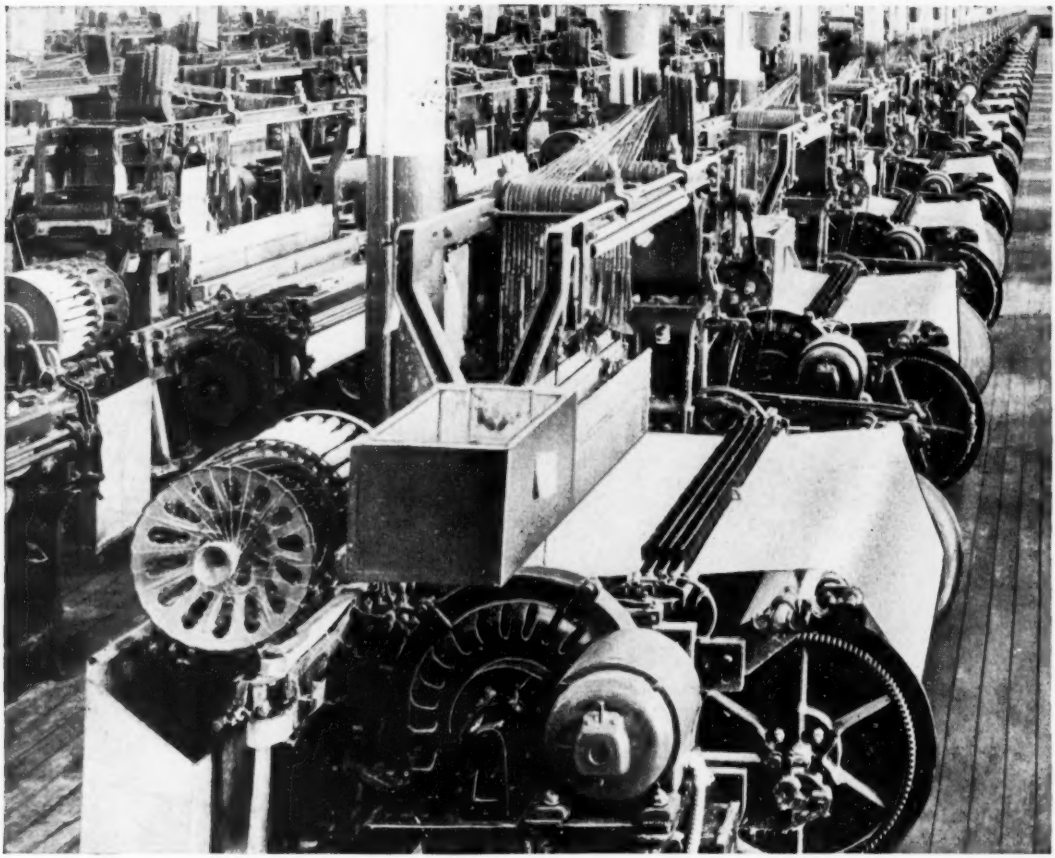


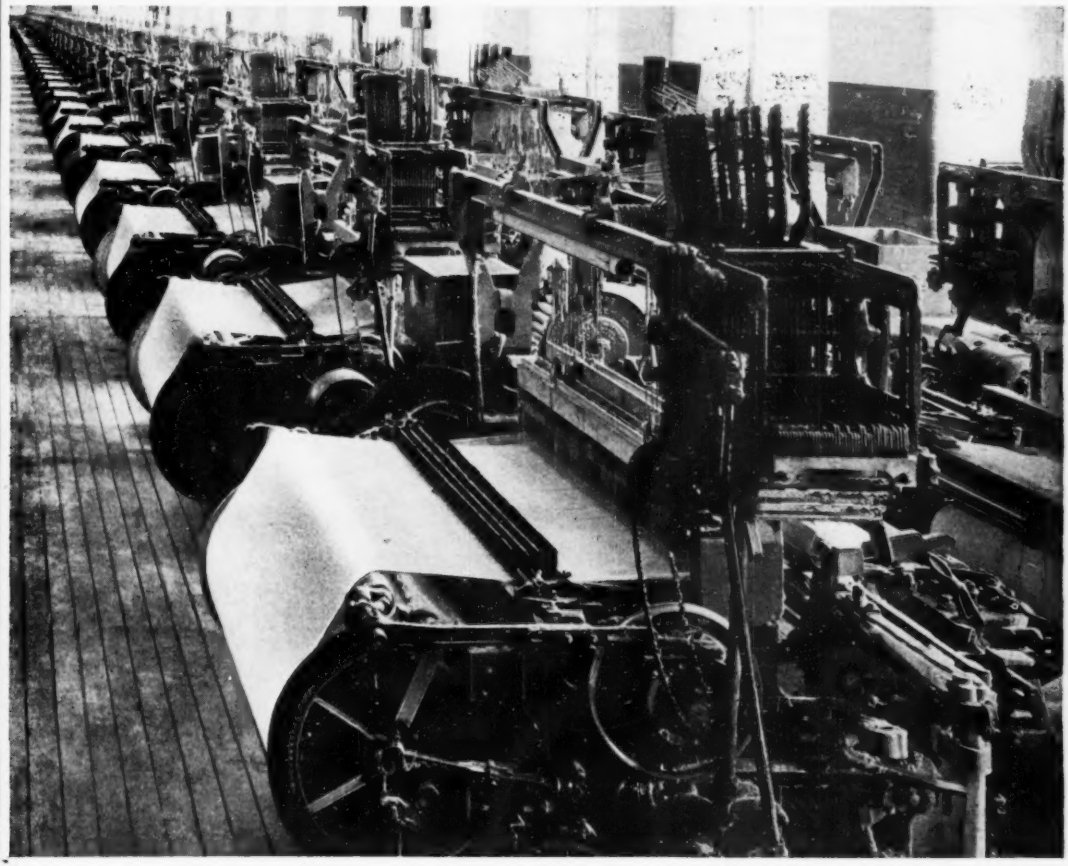
For lubrication counsel, contact your nearest Sinclair Representative or write Sinclair Refining Company, 600 Fifth Avenue, New York 20, N.Y.

HERE'S WHY SINCLAIR BEARING GREASE AF IS WIDELY ACCEPTED AS AN EXCELLENT LUBRICANT FOR ANTI-FRICTION BEARINGS:

Because it is highly resistant to oxidation, this great Sinclair product retains its *consistency* and *lubricating quality* under the toughest operating conditions. It is designed to *assure* freedom from leakage and loss due to softening and bleeding and the product spoilage which often results. The correct grade of Sinclair BEARING GREASE AF helps *reduce* starting load and power consumption by cutting friction to a minimum. It also protects against rust and corrosion of bearings.

Yes, all these *important* advantages have been *proved* by performance in many mills. And they can save *you* money. Less frequent applications are required, bearings last longer, and power costs are lowered.

Investigate, too, the advantages of Sinclair LILY WHITE Oils for spindles *and* Sinclair NO DRIP Oils for top rolls. They also have been *proved in use!*



SINCLAIR TEXTILE LUBRICANTS

SAVE WEAR AND REPLACEMENTS

WHAT *Life-Lines* REALLY DELIVER IS MORE SERVICE...LESS SERVICING

New textile booklet

answers important motor and control application problems

You'll see answers to typical problems like these:

the problem of lint . . . of shock and vibration on looms . . . of overloads
. . . of corrosion . . . of power consumption in weave rooms
. . . of speed tension and control

In addition are discussions on lubrication, maintenance and installation . . . on centralized motor control. In fact, it is the purpose of this booklet to analyze major motor and control application problems and provide solutions.

Also included is information on Westinghouse motor and control equipment for the textile industry. You'll see why the pre-lubricated bearings of Life-Line are setting new standards for the industry . . . how exclusive features of the loom motor starters protect against lint fires. A comprehensive list of available literature with data is included, plus a postage-paid reply card for your convenience in ordering additional information.

Get the facts on the most complete and most advanced line of motors and controls available today. Ask your Westinghouse representative for your free copy of this new textile booklet "Motors and Controls in the Textile Industry", B-5422, or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.

J-21700

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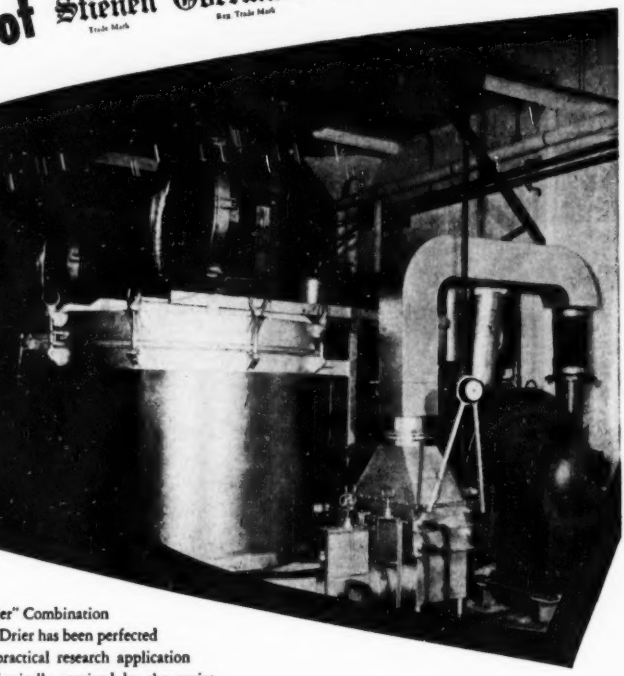
Substantially reduces labor costs and cuts drying time in more than half.



The "Stienen-Obermaier" Combination High-Speed Extractor-Drier has been perfected after many years of practical research application and has been enthusiastically received by the entire trade. This new system of extracting and drying has cut the total drying time more than half over other systems and has proven a superior method to any other available for package drying. This Combination High-Speed Extractor-Drier can be utilized by even the smallest package dyer to great advantage.

The quick drying time means faster turnover of yarn in the dyehouse, eliminating bottlenecks, and cutting production time in half. This means half the required floor space and half the material carriers.

In actual operation, the material carrier is removed from the dyeing machine and placed in the extractor-drier. For average production, the entire operation is handled in this one machine requiring 1½ to 2 hours. For larger production, the same machine is used for extracting. Additional Port Driers are used to maintain the same high-speed drying results.

Submit your sample package to our laboratory and you shall receive exact data on your type of yarn.

INSTALLED THROUGHOUT THE WORLD

PROVEN

The only complete laboratory unit made for sample dyeing, extracting and drying.

- entirely electrically operated
- no steam required

Stienen Obermaier

Standard Fabricators
INCORPORATED

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EXCLUSIVE SALES AGENTS OF OUR ASSOCIATES

Obermaier & Cie.
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*PAT. PEND.

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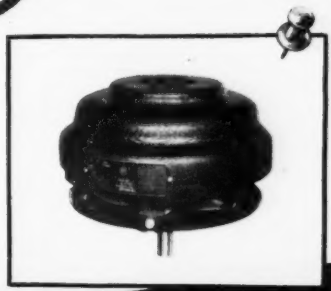
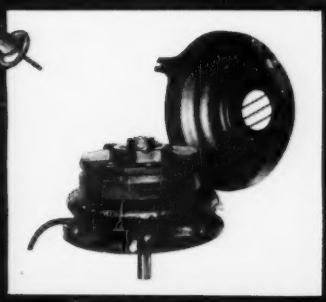
...AND NEW TEXTILE MOTOR

new open-cover lint free
axial air gap textile motor





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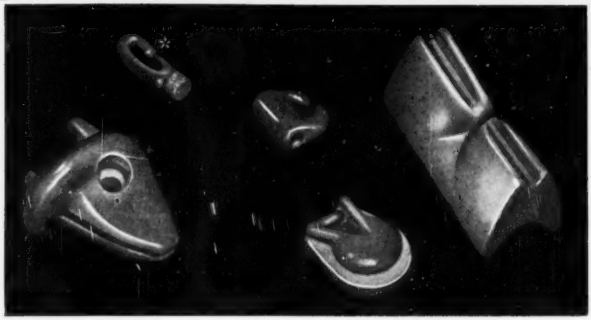
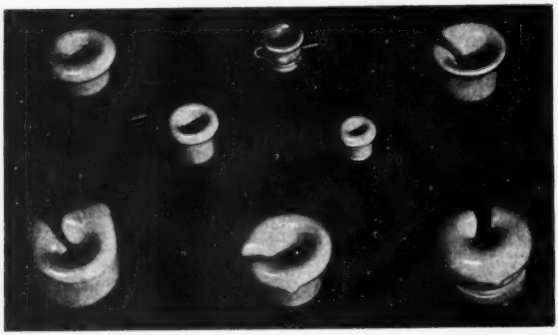
MITCHELL-BISSELL THREAD GUIDES

For Every Textile Service ...For More Than 70 Years





Above—"BLUE SATIN FINISH" PORCELAIN GUIDES.

An exclusive development of Mitchell-Bissell—guides with this finish are more resistant to thread wear than any glazed porcelain guides ever offered the industry. "Blue Satin Finish" Guides, instead of being shiny and glass-like, have a surface of thousands of small rounded grains closely packed together. Reduced wear and longer guide life result because, by breaking the continuity of contact between yarn and guide, friction is reduced. *U. S. Pat. No. 2,152,136.

Left—WHITE GLAZED PORCELAIN GUIDES.

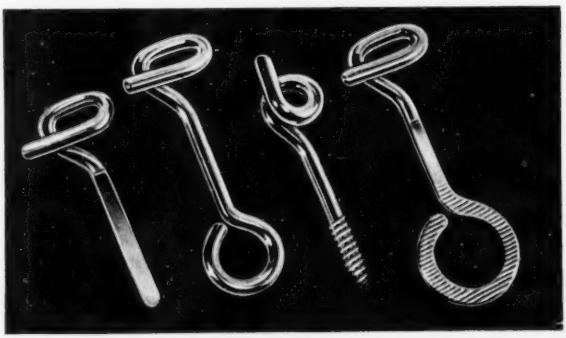
The Mitchell-Bissell Company originated the use of porcelain as a thread guide for the textile industry. The White Glazed Porcelain Guides shown here are representative of thousands of patterns that have been sold to all branches of the textile industry since this company was founded over seventy years ago. Improved in quality from time to time they are still "Standard."

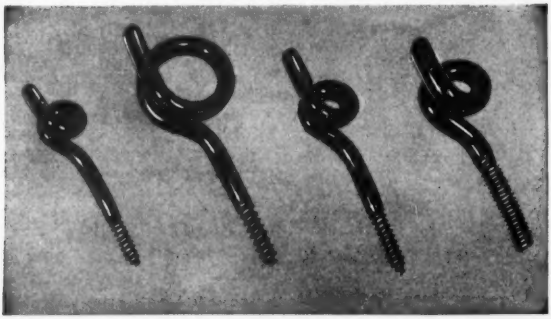
Right—CHROMIUM PLATED STEEL GUIDES.

The plating on Mitchell-Bissell Chromium Plated Steel Guides is harder and denser than on any other wire guides. Our methods of fabricating and polishing develop a surface smoothness, with a mirror finish far beyond usual commercial standards. Because of their superior resistance to thread wear these guides are used extensively on machinery for processing rayon and nylon yarns and also for many other severe applications.

Below—ENAMELED IRON GUIDES.

Where wire guides are desired, and service conditions do not require chromium-plated guides, our Enameled Iron Guides give exceptionally good service, with a low initial cost. Made with the care and craftsmanship that are standard practice on all Mitchell-Bissell products, these are recommended as centering and ballooning guides, and for cotton, woolen and other soft yarns.





TRENTON, N. J.

Southern Representative: **R. E. L. Holt, Jr. & Associates**
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COLOR
SELLS TEXTILES
Quality Keeps Them Sold
Colors, appropriate to the product, make sales. And when those colors hold fast through years of wear and tear, customers not only stay satisfied — they come back for more.
With over 40 years of experience and the largest yarn dyeing capacity in the world, Franklin Process is superbly equipped to give you colors that will sell your product and keep it sold.
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LARGEST PACKAGE DYERS IN THE WORLD

Richards-Wilcox "Zig-Zag" Continuous Power Conveyor can save you *Thousands of dollars Yearly!*

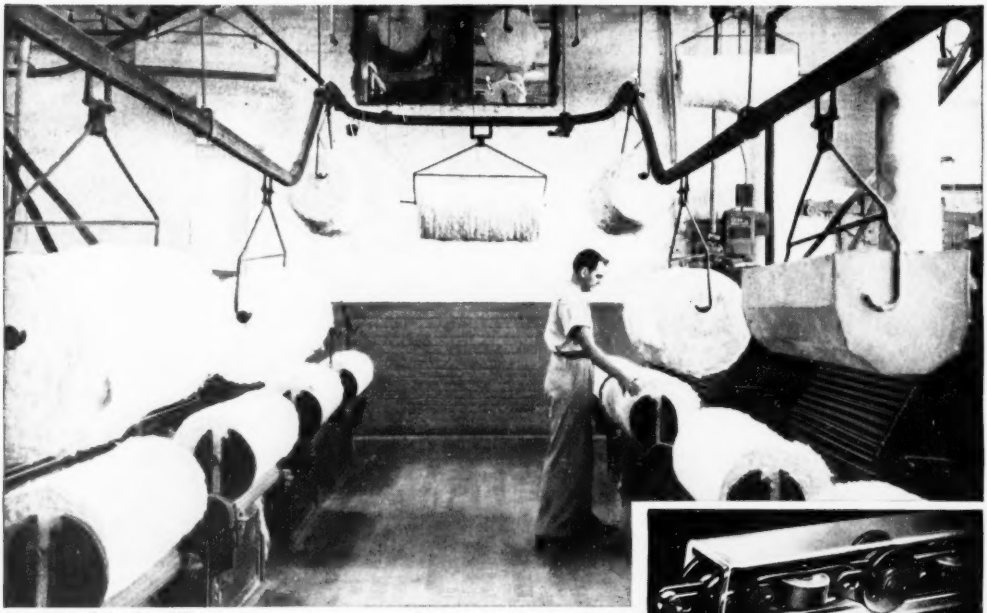
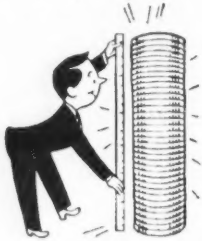


Photo: Courtesy Springs Cotton Mills



Yes, it's a proved fact that R-W Zig-Zag Continuous Power Conveyors can help save thousands of dollars in operating costs, and help raise production to boot. Patented ZIG-ZAG operates just like "water through a pipe"—it's a steel tube-like track through which travels a specially constructed motor-driven chain carrying unit loads up to 125 pounds each.

Zig-Zag solves handling problems in crowded or confined areas—increases efficiency and adds economy to any production line.

Engineered for economy and flexibility, here's what Zig-Zag has to offer you—

- Horizontal and vertical units alternate in a continuous chain traveling through special steel tubing.
- SAFE—all moving parts fully enclosed.
- Complete flexibility for installation in any plant. Easily installed, easily changed to conform to plant alterations.
- Low first costs. Low Power Factor.
- Standard horizontal or vertical curves—two-foot radius.

For complete information consult, without obligation, our engineers at the Richards-Wilcox office nearest you.

Richards-Wilcox Mfg. Co.

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AURORA, ILLINOIS, U.S.A. *Branches in all principal cities*

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OVER 72 YEARS

GENUINE REPAIR PARTS

. . . . a matter of DOLLARS and SENSE

See them at the
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GREENVILLE, S. C.
OCTOBER 6-11
SECTIONS 232 and 233

Repair parts are of vital importance to you. The continuous and efficient operation of your mill is dependent upon them. It simply does not make sense to entrust this critical phase of your operation to "mongrel" parts. Whitin machinery operates best with Whitin parts. It's as simple as that!

Whitin machines are precision built. Only Whitin Repair Parts can be machined to the same standards of finish and dimensional accuracy as the originals, insuring exact fit and ease of application. "Mongrel" parts not only give trouble in themselves, but often cause rapid wear and breakage of mating parts. It makes sense and saves dollars to insist on genuine Whitin parts!

Our plant in Charlotte, N.C. provides a nearby source of supply for Whitin Repair Parts and Repair Service to Southern mills. Make your repair parts problem our problem. You will find our staff of specialists in Repair Sales and Service helpful and valuable to you in working out your Repair needs.

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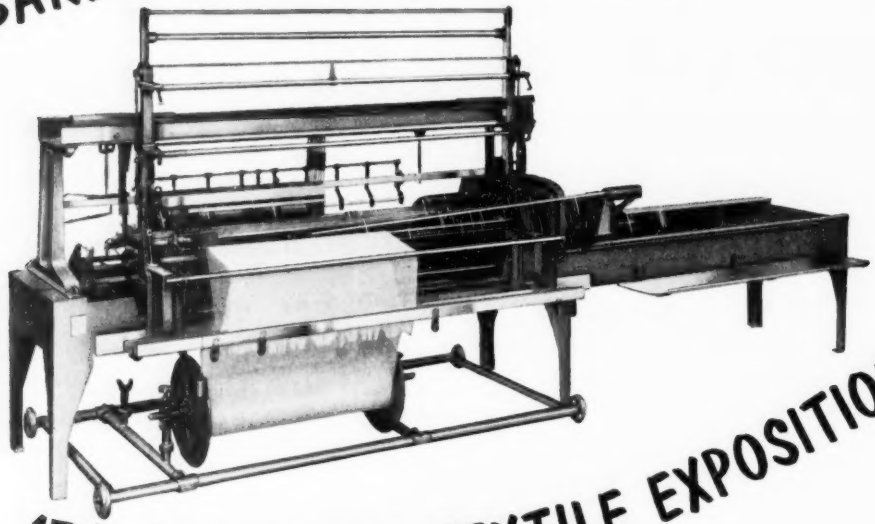
BARBER-COLMAN COMPANY



17th SOUTHERN TEXTILE EXPOSITION

BOOTHS
250 251
259

48eSH Warp Drawing Machine

New Improved Heddle Counter and Checker

New Power-Driven Pattern Punch

As for many years past, Barber-Colman Company will again exhibit at the Southern Textile Exposition. We will show in operation a 48eSH *Warp Drawing Machine,* a size designed to draw up to 8 harness, 6 banks of drop wires, and reed. Also, you can see a new model *Heddle Counter and Checker,* accurately and efficiently counting the number of heddles per frame and simultaneously checking them for correct operating sequence. Another working exhibit will be the new *Power-Driven Pattern Punch,* the newest and easiest method of making patterns for the Warp Drawing Machine. *Be sure to stop and see us!*

ALSO
BARBER-COLMAN
CONTROLS-Booth 216
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AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY
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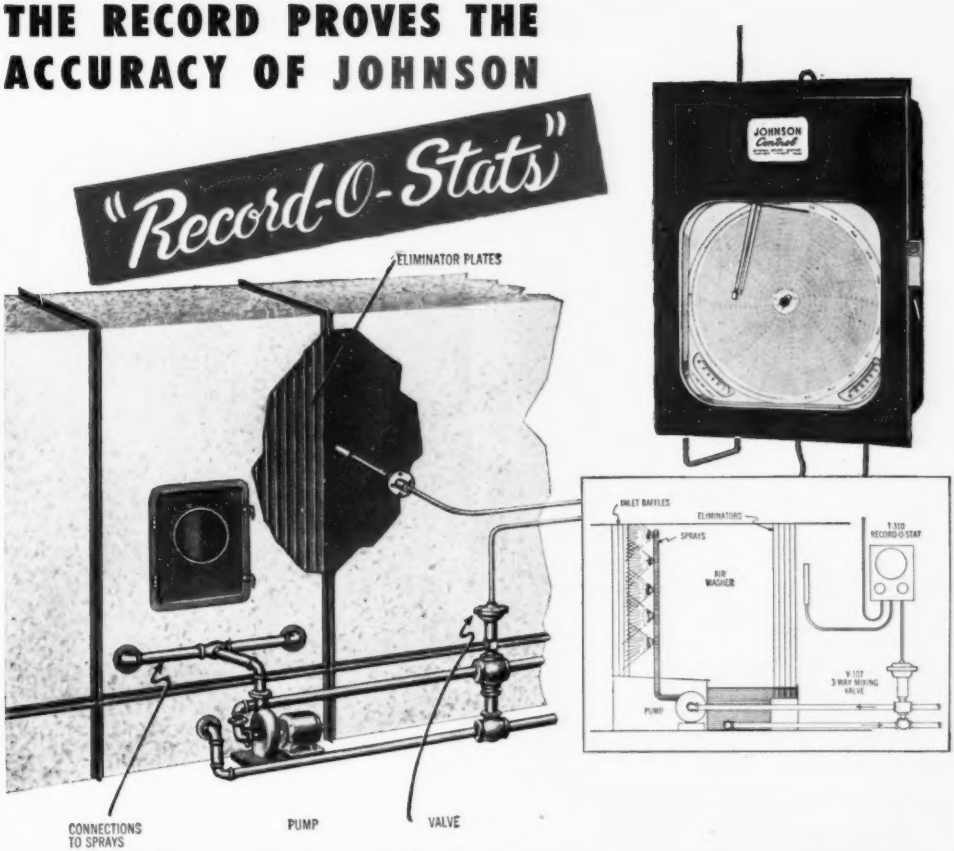
THE RECORD PROVES THE ACCURACY OF JOHNSON

"Record-O-Stats"



The application pictured above shows a Johnson "Record-O-Stat" maintaining a constant dew-point temperature of the air leaving the washer. And, a record of the temperature is always available for reference, which often is an important consideration where industrial processes depend upon space conditions. The Johnson three-way mixing valve, operated by the recorder-controller, insures a uniform temperature of the water which is delivered by the sprays.

Wherever temperatures must be controlled accurately and a record preserved, at the same time, the Johnson "Record-O-Stat" is the finest equipment of its kind. This recorder-controller records the temperatures measured by the bulb on a uniformly graduated chart. Standard charts are available in a variety of temperature ranges and may be had, on special order, in any desired range. On special order, also, the "Record-O-Stat" may be equipped with chart drive and charts to record temperatures for an entire week of operation. These recorder-controllers are available also with two controlling elements and two pens, in a number of combinations to fit special conditions.

The exclusive Johnson features make the "Record-O-Stat" widely adaptable and efficient in imparting proportional (gradual) action to the pneumatic valves or damper operators which it controls. An indicator-controller, for applications where a record is not required, is included in this series of instruments.

ASK FOR BULLETIN T-1000 which describes "automatic" reset and other features obtainable in Johnson "Record-O-Stats". JOHNSON SERVICE COMPANY, Milwaukee 2, Wisconsin. Direct Branch Offices in Principal Cities.

JOHNSON *Automatic Temperature and Air Conditioning* **CONTROL**

DESIGN • MANUFACTURE • INSTALLATION • SINCE 1885

46

Years

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AS
CONTRACTING ELECTRICAL ENGINEERS
TO THE TEXTILE INDUSTRY

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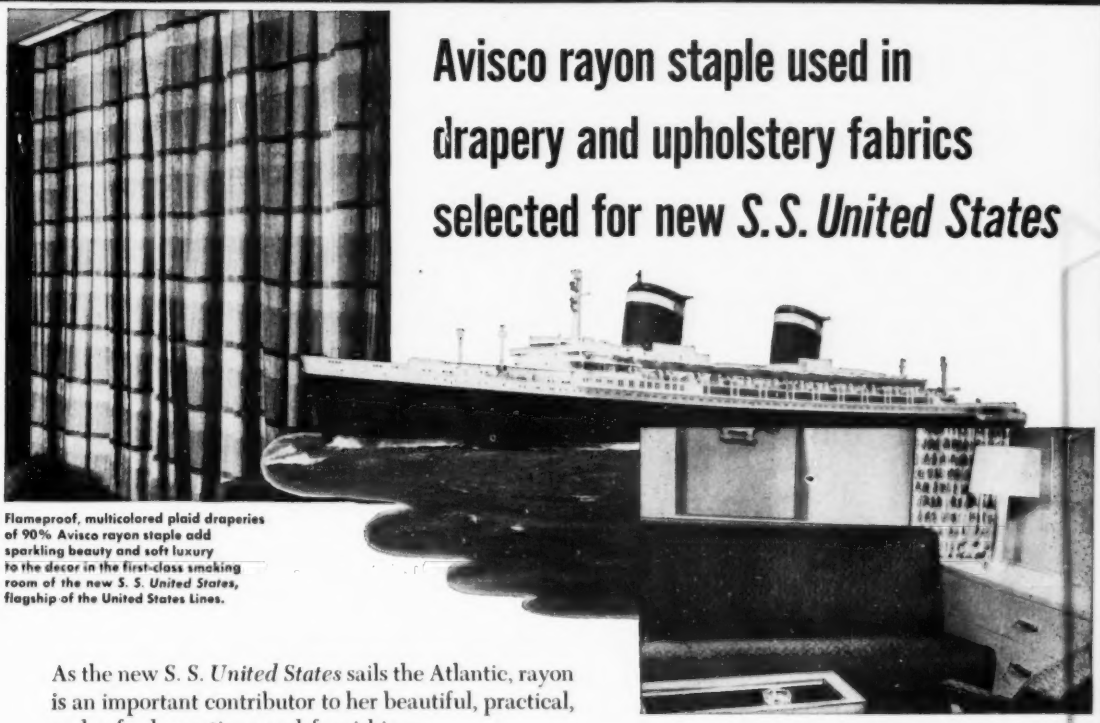
J. M. CLAYTON COMPANY
Contracting Electrical Engineers
ATLANTA, GEORGIA

Avisco rayon staple used in drapery and upholstery fabrics selected for new *S.S. United States*



Flameproof, multicolored plaid draperies of 90% Avisco rayon staple add sparkling beauty and soft luxury to the decor in the first-class smoking room of the new *S. S. United States*, flagship of the United States Lines.

As the new S. S. *United States* sails the Atlantic, rayon is an important contributor to her beautiful, practical, and safe decorations and furnishings.

View of one of the first-class cabins aboard the *S. S. United States* showing the antique satin upholstery made of a 60-40 blend of Avisco rayon staple and cotton.

ANTIQUE SATIN material made of a 60-40 blend of Avisco rayon staple and cotton was chosen for the upholstery fabrics in many of her first-class staterooms and lounges. In addition, multicolored plaid draperies made of a 90-10 blend of those fibers decorate her first-class smoking rooms. Like virtually everything else aboard the United States Lines' new luxury liner, both of these materials are flameproof.

THE UPHOLSTERY FABRICS have a woven check pattern with rayon warp and cotton filling. They are used in two vat-dyed colors, a rich emerald green and a soft red. The green material gains an iridescent quality through the interweaving of lighter and darker green tones, while the red combines touches of other colors to create a rainbow effect.

THE DRAPERIES are an outstandingly luxurious, multicolored plaid. In construction, they make use of 28 different color combinations formed by the interweaving of seven rayon warp colors and four cotton filling colors. A sparkling vitality is woven into the huge plaid, which is unrepeated across its entire fifty-inch width.

Each of the fabrics possesses a pleasant-to-the-touch, nubby texture and harmonizes with the blue-ribbon winner's contemporary decor.

The Avisco rayon staple was spun into yarn by Woodbury Mills, Inc., and the fabrics were woven by La Salle Silk Mills, Inc.; J. H. Thorp and Co., Inc., supplied the fabrics to Smyth, Urquhart, and Marckwald, Inc., interior decorators for the ship.

MAKE USE OF *Avisco*® 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
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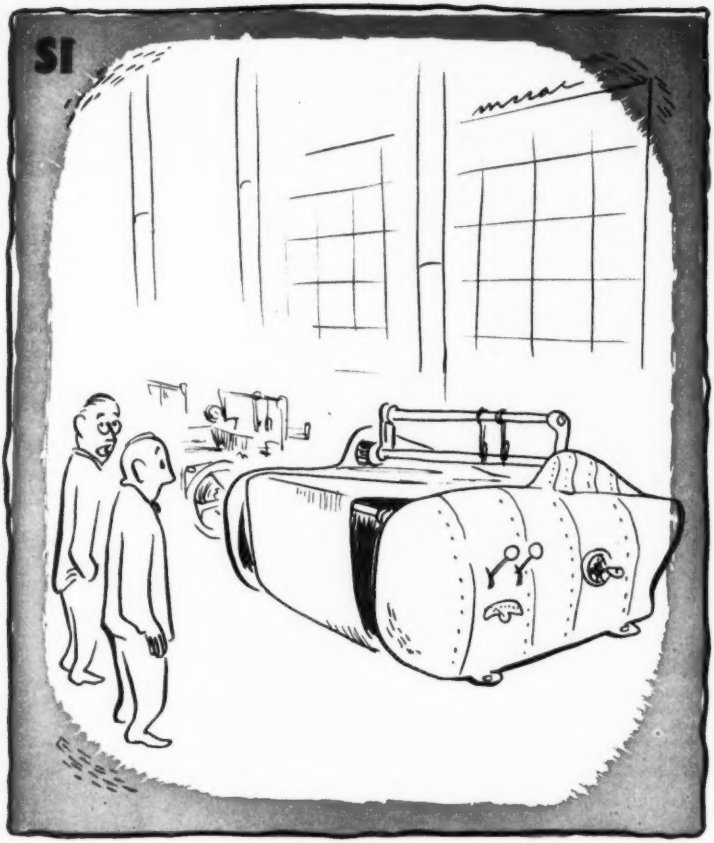
AMERICAN VISCOSE CORPORATION

World's largest producer of man-made fibers

RAYON ACETATE VINYON* FILATEX®

Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

*TMC & COC



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WARP SIZING
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- Binders
- Penetrants
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WET PROCESSING CHEMICALS AND AUXILIARIES
- Dye Assistants
- Penetrants
- Rewetting Agents
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- Detergents
- Scouring Agents
- Softeners

NIAGARA TWIST-SETTER
- Yarn Conditioning Penetrants

". . . . STREAMLINED, NO DROP WIRES, JET-PROPELLED SHUTTLE—TO GO WITH THAT NEW SIZE WE'RE GETTING FROM SEYDEL-WOOLLEY . . ."

Well, alright, maybe we're rushing things a little.

But by the time you see this loom at the Greenville Show, we'll have the size for it.

We dare you to try to dig up a problem our Research Department can't lick!

HEADQUARTERS FOR TEXTILE CHEMICALS

SEYDEL-WOOLLEY & CO.

TEXTILE CHEMICALS

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PENETRANTS • SIZING • SHUTTLE DRESSING • SOFTENERS • ALKALIS • TWIST SETTER MACHINES •

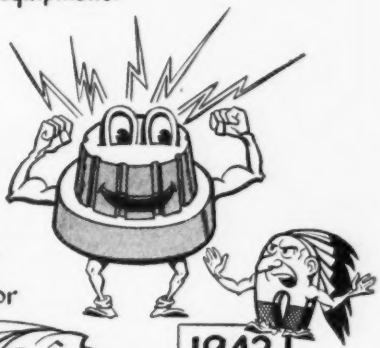
ERIEZ MAGNETIC ATTRACTIONS

MR. T.I.

ERIEZ MANUFACTURING CO., ERIE, PA., U.S.A. • PRODUCERS OF MAGNETIC SEPARATORS

WHY YOUR TEXTILE PRODUCTS NEED MAGNETIC PROTECTION

This is the subject of a new 6-page, 2-color bulletin offered by *ERIEZ* Manufacturing Company. Stop in at the big *ERIEZ* Booth No. 104 during the 17th Southern Textile Exposition in Greenville, South Carolina, October 6 through 11, for your free copy, or mail the coupon below. It is complete with descriptions and installation drawings of all *ERIEZ* magnetic equipment.



IT'S A FACT... ten years ago ten electromagnets were sold to every one permanent magnet. Today thanks to ***ERIEZ***, the pioneer and biggest factor in permanent magnetic separators, the ***RATIO IS REVERSED!***

ERIEZ SPIKED APRON MAGNET is tough on metal entering waste products at the United Waste Company. Since installing ***SPIKE***, fires due to sparks from tramp iron have been virtually eliminated ... garnett clothing life has been extended five times beyond previous limits!

ERIEZ Manufacturing Company, 1501 E. 12th St., Erie, Pa.

My Contamination or Separation Problem is: _____

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Please Send Me the *FREE* Textile Bulletin

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Company Name _____

Street _____

City _____ Zone _____ State _____ 52-I

FASHION OF THE YEAR SAYS:

A CRÊPE...AND CRÊPE

CAN BE WOVEN ONLY ON

C&K S-6 LOOMS

The **LARRY ALDRICH** touch, his knowing way with a slimming length of stitch, tucked crêpe, letting the fabric do all the talking, and good dialogue it is with that witty neckline, the easy cue-line of buttons. $90 in rayon-and-acetate crêpe woven on looms manufactured by **CROMPTON AND KNOWLES.** LORD AND TAYLOR, New York I. MAGNIN, California J. L. HUDSON, Detroit

VOGUE said it first in July . . . then again this month—crepe is back . . . and back to stay. Yes, *this* fall—and for many falls to come—crepe will be *the* material.

And today's crepe—a wonderful, modern material, entirely different from the old-fashioned crepe of the 20's — *has just one origin* . . . the modern S-6 Loom built by C&K.

See the magnificent fashions styled in crepe in the September 1 issue of Vogue . . . see the richness and quality in today's *new* crepe fabric . . . then see C&K for the famous S-6 Loom—the *only* loom on which you can weave this high-fashion fabric.

Today's Modern, Quality Crepe Is Woven By A Long List of Modern Mills on S-6 Looms

Crompton & Knowles LOOM WORKS

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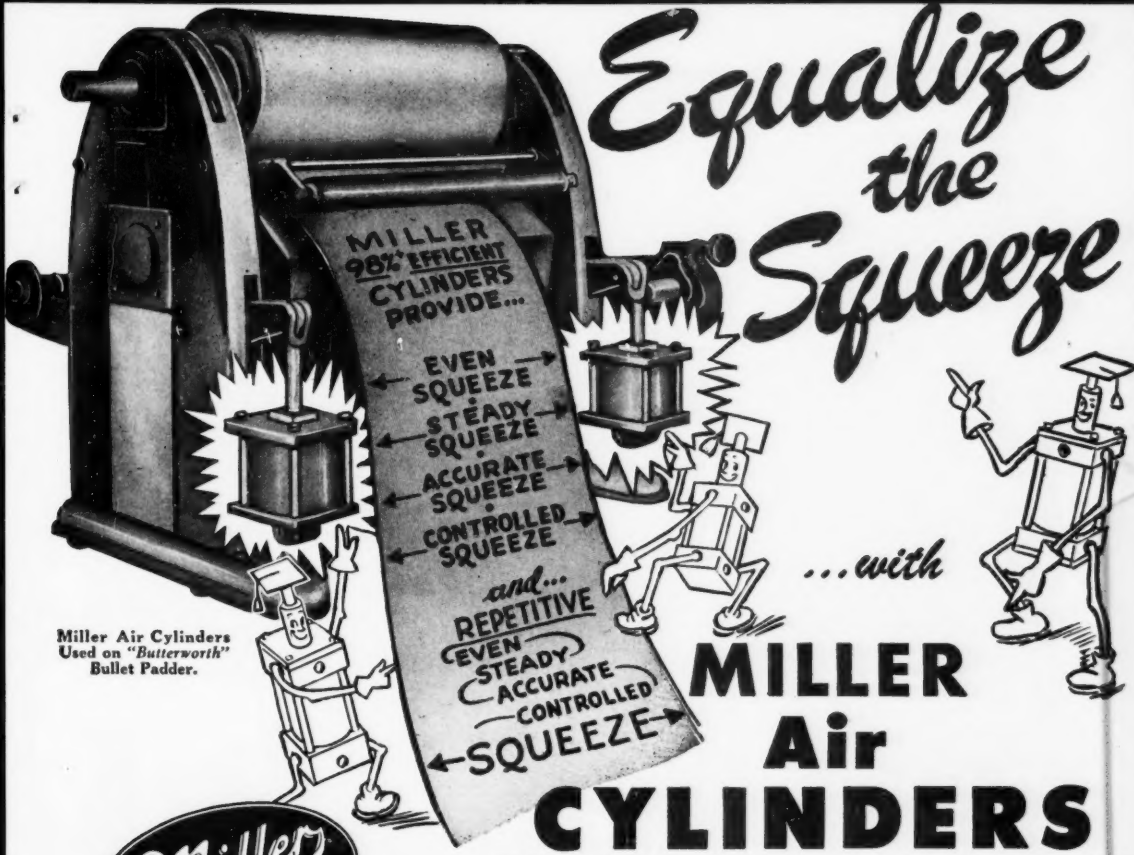
Equalize the Squeeze



Miller Air Cylinders Used on *"Butterworth"* Bullet Padder.

...with

MILLER Air CYLINDERS

Miller Air Cylinders economically provide the steady, even, repetitive "squeeze" so essential for the pressure rolls of textile machinery and equipment.

Precision-accurate adjustment and repetitive application of pressure to always the exact degree desired are assured by the high-efficiency, leakproof operation of these cylinders and the extremely low "break-away" pressures required to obtain smooth piston movement. Even when the operating plant air pressure is again applied after days of machine inactivity, piston movement is instantaneous—smooth- -chatter-free . . . because the Miller *self-regulating, wear-compensating* piston and rod seals *will not "freeze"* to prevent piston movement or to cause jumpy, jerky action. These seals never need adjustment, have no provision for adjustment, therefore *cannot be over-adjusted.* The Miller rod seal operates against the Miller scratch-resistant, rustproof hard chrome plated piston rod; the Miller piston seal operates against the precision-honed, highly polished finish of the Miller rustproof hard brass cylinder barrel. No wonder these seals still give leakproof, efficient service after millions of strokes. No wonder Miller Air Cylinders are completely free from the rust conditions common to ordinary cylinders.

In addition, *dirt wipers* at rod ends keep out all dirt and lint, and *solid steel* heads, caps, and mountings eliminate costly, dangerous breakage.

Write for illustrated cylinder bulletins A-105 and H-104

COMPLETE MILLER CYLINDER LINE INCLUDES: AIR CYLINDERS, 1½" to 20" BORES, 200 PSI OPERATION; LOW PRESSURE HYDRAULIC CYLINDERS, 1½" TO 6" BORES FOR 500 PSI OPERATION, 8" TO 14" BORES FOR 250 PSI; HIGH PRESSURE HYDRAULIC CYLINDERS, 1½" TO 12" BORES, 2000-3000 PSI OPERATION. ALL MOUNTING STYLES AVAILABLE.

MILLER MOTOR COMPANY

2042 N. HAWTHORNE AVE., MELROSE PARK, ILL.

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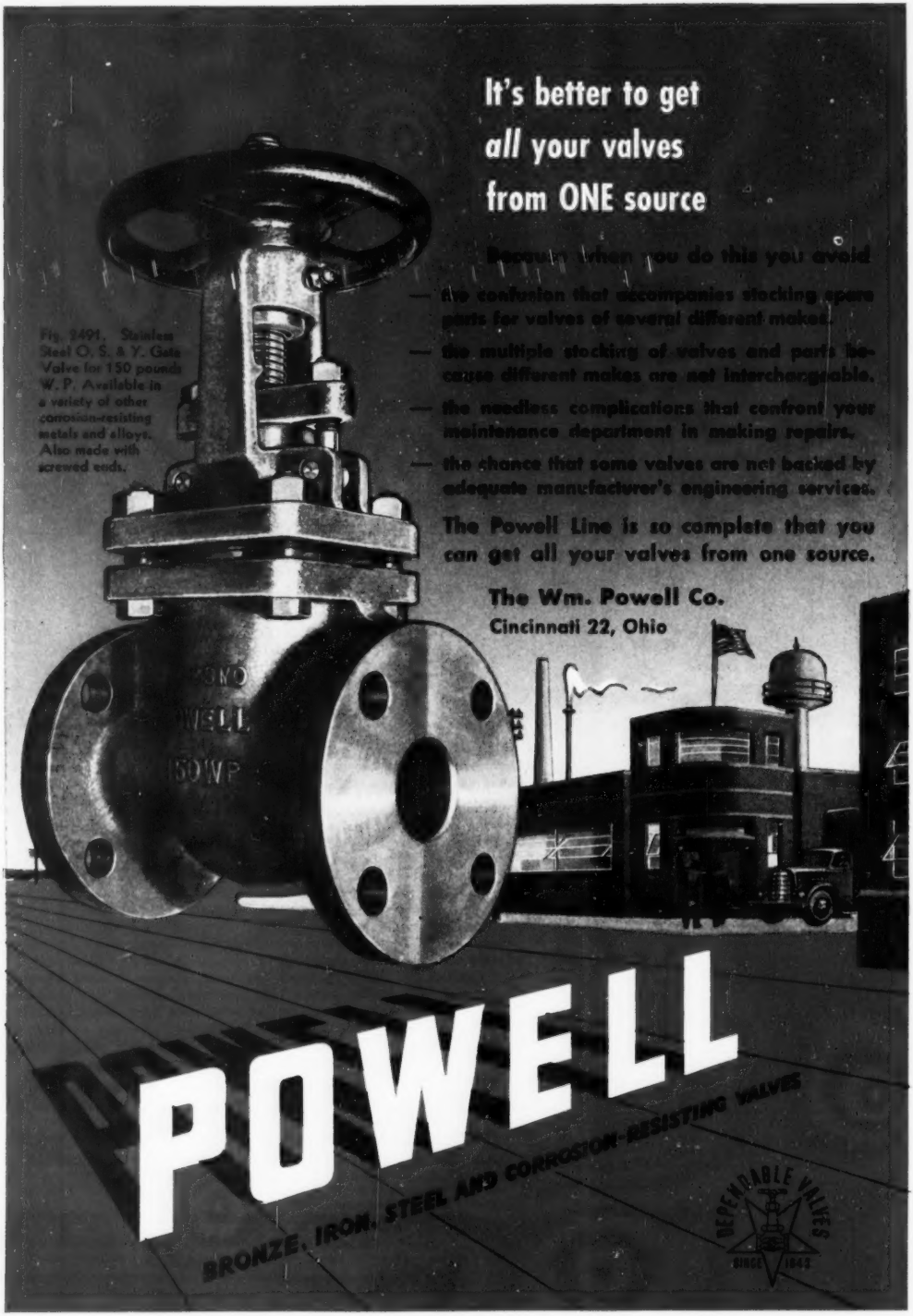
Sales and Service from coast to coast


It's better to get
all your valves
from ONE source
Because when you do this you avoid
— the confusion that accompanies stocking spare parts for valves of several different makes.
— the multiple stocking of valves and parts because different makes are not interchangeable.
— the needless complications that confront your maintenance department in making repairs.
— the chance that some valves are not backed by adequate manufacturer's engineering services.
The Powell Line is so complete that you can get all your valves from one source.
The Wm. Powell Co.
Cincinnati 22, Ohio
Fig. 2491. Stainless Steel O. S. & Y. Gate Valve for 150 pounds W. P. Available in a variety of other corrosion-resisting metals and alloys. Also made with screwed ends.
POWELL
BRONZE, IRON, STEEL AND CORROSION-RESISTING VALVES
DEPENDABLE VALVES
SINCE 1842

Card-Clothing
for woollen, worsted, cotton and asbestos industry as well as for textile finishing industry and assessories for spinning machines
PLUM
JOSEPH PLUM · KRATZENFABRIK · BEUEL AM RHEIN

CLOTHING FOR WOOL CARDS:

In our pilot plant we constantly check, test, and improve card clothing for wool tops, Vigogne, coarse wool and mohair for rug-yarn spinning mills as well as upholstery factories, etc., to assure that the materials (tibers) will be fully opened and present an excellent and fur-like composition and appearance.

CLOTHING FOR WORSTEDS:

Through special inset and knee angles our worsted card clothing wires are suitably reinforced and resistant in every regard to meet the demands of any firm engaged in manufacturing worsteds.

RAW CLOTHING:

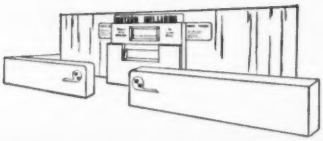
By achieving unique development of wire with rounded knee and in selected positions, despite negative circumstances, we are experiencing mounting success in introducing improvements to the textile industry.

CLOTHING FOR ASBESTOS:

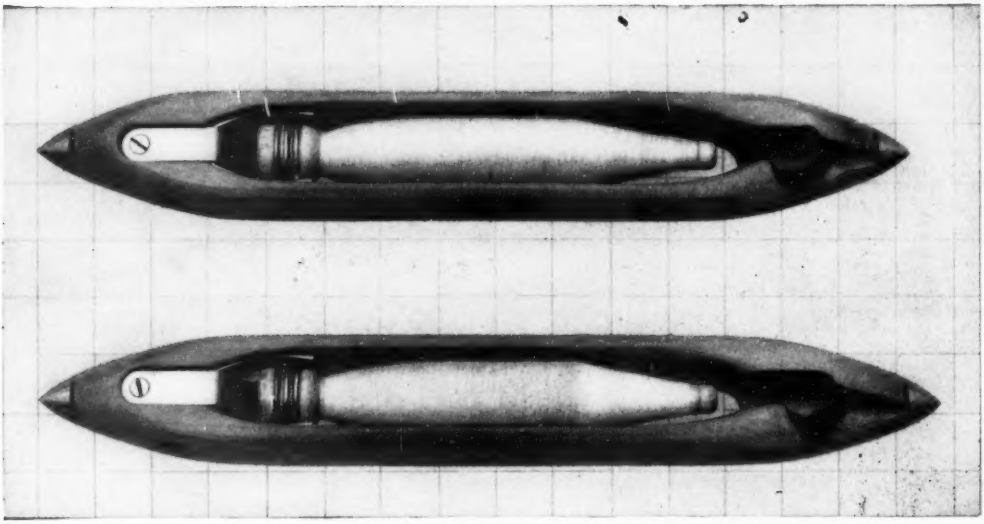
We have found through experience that, instead of the normally used felt base, our inserted rubber-felt base has great stability and capacity of resistance which gives the asbestos clothing a greater life expectancy.

All other types of card clothing are under extensive development by acquiring well qualified experts who have, up to now, positively influenced our developments of good products.

JOSEPH PLUM • KRATZENFABRIK • BEUEL AM RHEIN • GERMANY

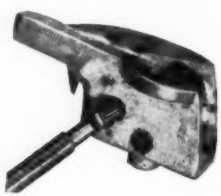


Make your first stop at Booth 128 to see these NEW SHUTTLES FOR DRAPER LOOMS



Major shuttle improvements have long come from Watson-Williams. This time the Shuttle People are introducing two leaders in their field — **shuttles for Draper Looms, fitted with Cast Iron Eyes, to accommodate a longer filling package.**

One of them is 15¼" long, the other a standard 15¾" long. Both are equipped with 8" bobbins. The 15¼" length shuttle is designed to use a short eye to give longer bobbin length. A short eye can also be incorporated in shuttles of other lengths for Standard Draper Looms, and for C and K cotton looms to provide a maximum length bobbin.



Are you Getting the Tension Benefits of the Blanchard Adjusting Screw?

Tension stays where you want it, with this increasingly popular Quarter Turn Locked Adjusting Screw, a feature of most Watson-Williams Center and Rear Tension Eyes. Neither loom vibration nor shuttle handling can disturb the tension you set.

We're looking forward to your visit

Wilbur L. Watson, *President*
Hubert J. Watson, *Treasurer & Sales Manager*
Harold E. Goff, *Superintendent*
Raymond E. Norman, *Assistant Superintendent*
Arthur Bahan, *Southern Representative*
John Wyatt *of the Greensboro Office of Watson and Desmond, our Southern Selling Agents*
The staff of Watson and Desmond

WATSON-WILLIAMS MFG. CO.
The Shuttle People
MILLBURY, MASSACHUSETTS

B.C.* fable of floor space that wasn't there

Once upon a time, back in the olden days BC* (Before Cargotainers) there was a Widget manufacturer with a fine reputation in the trade. His sales policies were sound; his quality good; his prices right.

Yet this doughty Widgeteer had much to worry about. He found himself falling behind his competitors in cost-cutting methods and new product development. What he really needed was more machinery.

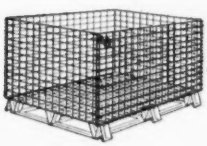
Now, the cost of the new equipment didn't bother him much . . . it was the floor space to put it in that had him buffaloed. He couldn't find it, and he couldn't afford a new building without raising prices.

until this factory found it by going A.C.*

Then the Cargotainer salesman called and the sun began to shine again. Mr. Widgetmaker learned how his raw materials, subassemblies and finished products could be vertically and visibly stored in Cargotainers. Accurate inventories became easy.

Not only did this compact new storage method save the space he needed, all materials and parts remained in their rugged, folding Cargotainers as they moved to assembly line and shipment. Safety records went way up and costs came tumbling down.

Moral: If, by chance, you are BC, you can save space by going AC* (After Cargotainers). Our Materials Handling Engineers will show you how. Write today. Dept. TI, Pittsburgh Steel Products Company, Grant Building, Pittsburgh 30, Pa.



CARGOTAINERS

by Pittsburgh Steel Products Company

A Subsidiary of Pittsburgh Steel Company

New
ALLIS-CHALMERS
Textile
Drives
Guard
Removed
See this new card drive and other
Allis-Chalmers products for the Textile
Industry at
Greenville Textile Show
October 6-11
Booth 339

CARD DRIVE

Compact

Requires practically the same floor space as an overhead belt drive. Drive is mounted directly on card shaft with torque arm to keep it in position. No strain on card arch to cause vibration or distortion.

Reduces Maintenance Costs

No heavy, expensive belts to wear out. No periodic belt dressing. Each machine can be shut down independently for maintenance or change-over instead of a whole bay. Vibrationless drive increases life of all parts and makes machine easier to keep in adjustment.

Cleaner Operation

No sticky belt dressing to catch dirt. Won't throw oil and dirt into material to cause low quality goods or rejects.

Uniform Speed

Drive unit locked tightly to shaft. No slip to cause speed variations and low quality product.

Safer

No belt to catch hands or clothing, especially during grinding and cleanout.

ARE YOU STILL USING OVERHEAD BELT DRIVES on your cards because no one has come out with a good card drive that can be installed at a reasonable price? Well, here is the card drive you have been looking for.

You don't have to move your cards to install this drive. It will fit in the same space as your present drive. And it's easy to install. Simply fit the Falk gear reducer on the shaft and attach a torque arm to keep it in position. Stripping procedures are almost the same as with your present drive. The savings in lower maintenance costs, more production and higher quality goods will soon more than pay for the new drive.

Think how much neater, lighter and more efficient your plant will be, too, without that forest of shafting and belting hanging from the ceiling. Ask the Allis-Chalmers representative to show you what new card drives will do for your mill. Or write Allis-Chalmers, Milwaukee 1, Wis., and ask for Bulletin 51B7867.

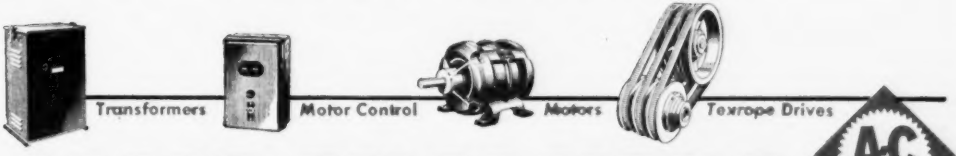
A-3787

Texrope, Quick-Clean and Vari-Pitch are Allis-Chalmers trademarks.

Send for Free Engineering Literature

Quick-Clean Textile Motors - 51B6055
Texrope Drives - - - - - 20B6051
Vari-Pitch Sheave - - - - - 20B7499
Dielectric Heater - - - - - 15B6431
Power Generating Equipment, Transformers, Circuit Breakers, Power Distribution Equipment 25B6150

COMPLETE SERVICE — from power line to machine



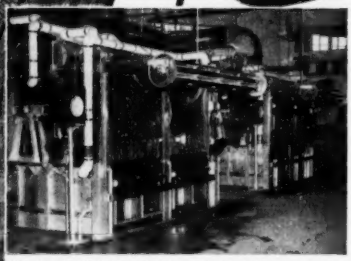
ALLIS-CHALMERS

Originator of the Multiple V-Belt Drive for the Textile Industry

HUNTER *equipment safeguards quality at*

BACHMANN UXBRIDGE WORSTED
CORPORATION

Meticulous attention to every phase of manufacturing enables Bachmann Uxbridge to produce quality fabrics that are in constant demand by leading clothing manufacturers and retailers everywhere. In Bachmann Uxbridge plants . . . and in other progressive mills throughout the world . . . Hunter superior "plus production" equipment is preferred for high quality finishing of a wide variety of *woolens, cottons, blends* and *synthetics.*



The Model "S" Dye Kettle with Herringbone Reel is a versatile unit that is adaptable for all types of fabrics and can be built to handle both bleaching and dyeing. Bachmann Uxbridge uses these efficient stainless steel units for "plus production" performance. BULLETIN SK.

The Uniflow Tenter Dryer is an efficient pin tentering unit that produces more yardage, on a wide variety of fabrics, at lower steam, labor and power costs. Bachmann Uxbridge and other leading mills use these units for faster, more uniform drying. Send for BULLETIN UTD.

Campus Togs
Louis Goldsmith Inc.

plus production
+ efficient operation of modern equipment
+ less down time of equipment
+ quick, easy repair . . . rapid parts delivery

JAMES HUNTER MACHINE COMPANY
NORTH ADAMS, MASSACHUSETTS

BUILT BY HUNTER . . . . IT'S DEPENDABLE

JAMES HUNTER MACHINE CO. Hunter NORTH ADAMS MASS.

FOUNDED 1847

LIVERMORE

in the LIMELIGHT.... at the SOUTHERN TEXTILE EXPOSITION

GREENVILLE, S. C.
OCTOBER 6–11, 1952

With the textile industry allocating 75% of its present spending to expansion and modernization, the HFL IMPROVED LOOM PARTS to be displayed and demonstrated at the Greenville Show will have the close attention of all thoughtful mill men.

SINCE 1887 the industry has been looking to Livermore for leadership in the engineering and design of Improved Loom Parts... and in this 65th year Livermore is coming up with some of its greatest achievements.

Highlights at Greenville:

HFL IMPROVED

DOBBY
... complete, motorized and in operation.

HFL IMPROVED

SIMPLIFIED THREAD CUTTER
... replacing the Stafford type on a Battery. Also, the same Cutter set up on HFL's Magazine to eliminate drag-ins, and improve cloth quality.

H. F. LIVERMORE CORPORATION 65th ANNIVERSARY 1887 1952 IMPROVED LOOM PARTS

We recognize anew our responsibility, as the oldest and largest manufacturer of IMPROVED LOOM PARTS, to strive for even greater accomplishments in making the task of a weaver easier, his manufacturing costs lower, his loom production greater, his cloth quality higher.

YOU WILL BE WELCOME AT OUR BOOTH No. 109-A

HFL
IMPROVED LOOM PARTS

H. F. LIVERMORE CORPORATION
ESTABLISHED 1887

EXECUTIVE OFFICES & PLANT
BOSTON 34, MASS.

SOUTHERN DIVISION
GREENVILLE, S. C.

ONLY *Fletcher* EXTRACTORS offer such a complete range of sizes

30 inch- 55 pounds*

33 inch- 90 pounds*

40 inch- 130 pounds*

48 inch- 190 pounds*

60 inch- 300 pounds*

Yes, Fletcher alone can supply the right size extractor for every textile requirement. With our "Junior" Extractor made with 30" and 33" basket sizes and the famous "Whirlwind" with baskets in 40", 48" and 60" diameters you can now balance your extractors with your dyeing machines. At the same time, you can be sure of getting Fletcher's many design features and high quality construction. Remember, we are specialists in the manufacture of extractors and have the experience and know-how to assist you in solving your extracting problems. Our engineers will gladly consult with you—or if you'll tell us the size in which you are interested, descriptive bulletins will be sent you.

*Pound capacities are for rayon skeins, dry weight.

— CONSTRUCTION FEATURES —

The "JUNIOR"

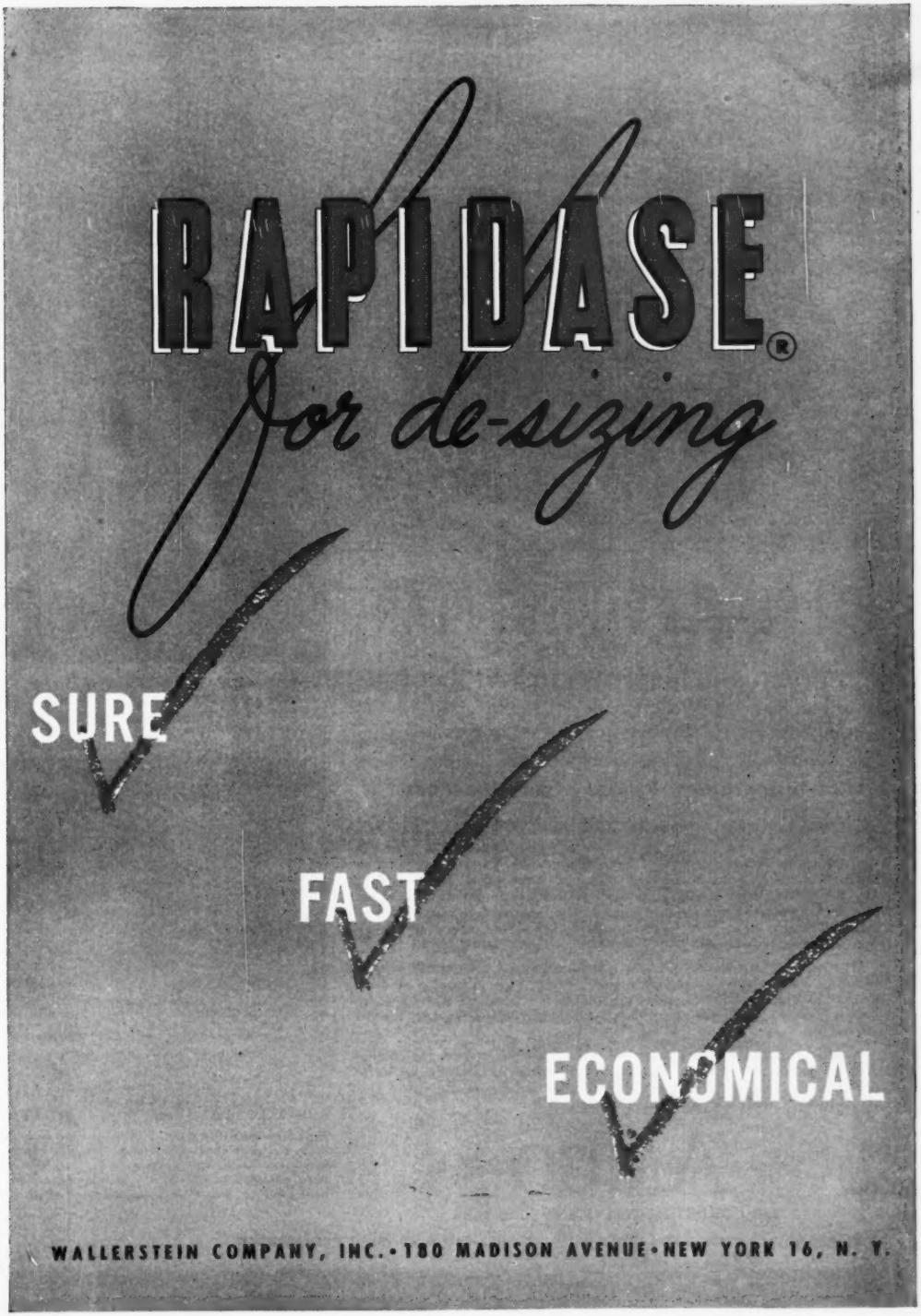
- Safe—Won't start until cover is closed. Cannot be opened until basket is stopped.
- Smooth stainless steel basket cannot harm fabrics.
- Exclusive Fletcher "Super Self-Balancing." High stability up to 10 pounds out of balance.

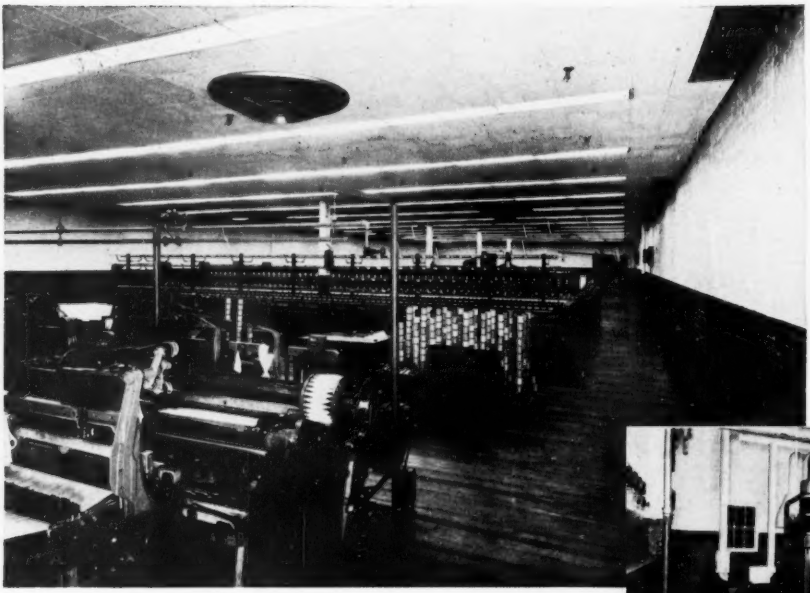
The "WHIRLWIND"

- Heavy stainless steel basket—glass smooth interior. No corrosive steel reinforcing bands. Permanently safe.
- Finger-tip control for automatic braking.
- Easy to load and unload.
- Compact. Saves floor space.

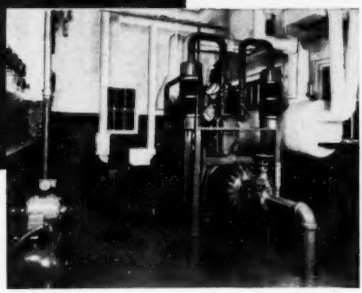
FLETCHER WORKS

247 GLENWOOD AVE. PHILADELPHIA 40, PA. ESTABLISHED · 1850


RAPIDASE®
for de-sizing
SURE
FAST
ECONOMICAL
WALLERSTEIN COMPANY, INC. • 180 MADISON AVENUE • NEW YORK 16, N. Y.



Pilot Plant of Pepperell Manufacturing Company, Lindale, Ga.



PEPPERELL'S PILOT PLANT

. . . synthetic fiber research at its best!

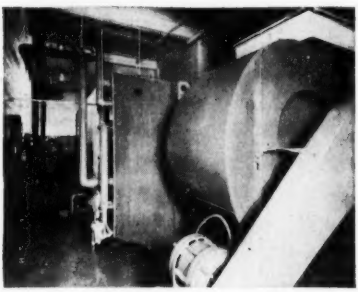
Amco Central Station Air Conditioning meets Pepperell's exacting specifications for control of temperature, humidity, air cleanliness.

At the heart of the pilot plant is this air conditioning equipment room — containing compressors, water chiller and cool water circulating pump.

When Pepperell Manufacturing Company built their "miniature mill" at Lindale, Georgia, they set out to produce a nearly perfect pilot plant for test operations with the newest synthetic textile fibers. To maintain complete atmospheric control the year-round, they had Amco install central station air conditioning with refrigeration and electrostatic air filtering. Accurate, adjustable control of temperature and humidity assures the exact conditions required for any given pilot operation. All ducts are hidden for neat appearance and easy housekeeping.

Of course, it isn't always practical, or desirable, to "streamline" a plant like this. Your plant — like many mills — may already have a modern, efficient humidification system. You can easily add COOLING with an Amco ductless system — without discarding anything, and by making only modest alterations.

Amco systems give you a choice of humidification, evaporative cooling (central station, dry duct, or ductless types) or refrigeration, alone or in combination. You can rely on Amco to give you advice on the system best suited to your needs. Call an Amco engineer.



Apparatus room contains air blower and washer

Benefits of Controlled Humidification and Cooling

Regain maintained • yarn counts kept more even • static electricity eliminated • closer machine adjustments and higher speed maintained • less broken fibers, dust and fly • cleaner yarns • stronger, more even fabrics • greater worker comfort and efficiency

AMCO

AIR CONDITIONING SYSTEMS since 1888

Humidification • Evaporative Cooling (Ductless or Central Station) • Refrigeration

AMERICAN MOISTENING COMPANY, PROVIDENCE, R. I. • ATLANTA • BOSTON • CAMDEN • CHARLOTTE • AFFILIATED WITH GRINNELL COMPANY, INC.

It pays to fit
Gulf Sales and Staff Engineers
into the maintenance picture

You get

- BETTER LUBRICATION
- LESS DOWN TIME
- LOWER MAINTENANCE COSTS

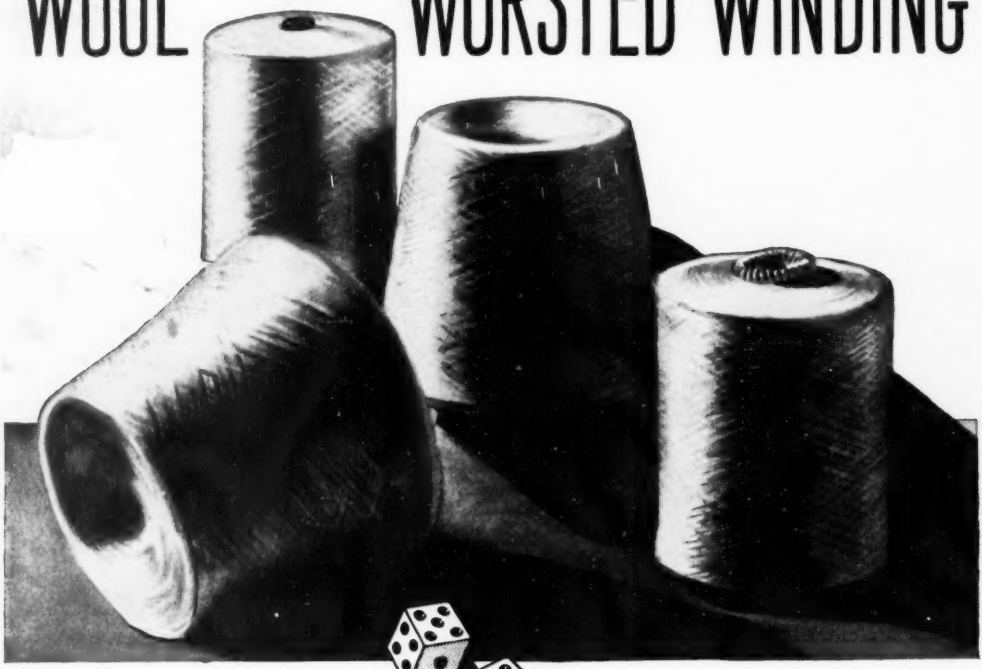
Scores of leading mills find the wide experience and broad practical knowledge of Gulf Sales and Staff Engineers invaluable — a source of real cost cutting solutions for their maintenance and lubrication problems. If you are not already doing so, you'll find it pays to fit Gulf Sales and Staff Engineers into your maintenance picture.

For further information, write, wire, or phone your nearest Gulf Office today.

Gulf Oil Corporation • Gulf Refining Company
Pittsburgh 30, Pa.

GULF INDUSTRIAL LUBRICATION

WOOL AND WORSTED WINDING

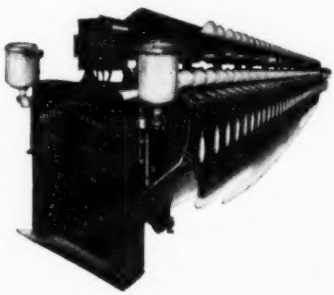


It's a NATURAL for the FOSTER MODEL 102

The Foster Model 102 is the most suitable machine on the market for the winding of wool and worsted yarns. Here's why:

1. A 7" traverse package, if desired.
2. High winding speeds (up to 700 y.p.m.).
3. Brackets can be supplied for holding any type cop or bobbin in correct position for maximum winding efficiency.
4. Standard traverse mechanism will handle even hard twist worsted yarns with maximum resistance to cutting action.
5. Winds soft twist or hard twist yarns, any count or type, on warping cones, knitting cones, parallel tubes, dye packages or twister packages — any taper, and 9 angles of wind from 9° to 18°.
6. Several types of self threading tension and slub catching attachments promote quick threading and automatic inspection.
7. Repair costs run as low as $3.50 per year per 100 spindle machine.
8. Empty bobbin conveyor **BELOW BOBBIN** pins eliminates lifting because conveyor discharges into standard size truck.
9. One side of the machine can wind tubes, the other cones, if desired.

Send for Bulletin A-95 for complete data.



FOSTER MACHINE CO.

WESTFIELD, MASSACHUSETTS

Southern office, Johnston Bldg., Charlotte, N. C. — Canadian Representative, Ross Whitehead & Co., Ltd., 1475 Mountain St., Montreal, Que. — European Representative, Muschamp Taylor, Ltd., Ashton-under-Lyne, England.

12 years with minimum maintenance and no replacement for these *Stainless Steel* boarding forms

...and few rejects caused by snagging

Final boarding takes place on steam-filled Stainless Steel forms. Equipment was made by Paramount Textile Machinery Co., Chicago, Ill.

● The smooth, dense, durable surface of Stainless Steel makes it the ideal material for textile mill applications where long life, freedom from maintenance and protection of the product must go hand in hand.

These qualities of Stainless Steel are demonstrated dramatically at Acme Hosiery Dye Works, Pulaski, Va., where nylon hosiery takes its size and shape on Stainless boarding forms.

Ten times an hour around the clock Stainless pre-boarding forms are subjected to temperature changes from room level to 252°F. in the steam cabinet. But the 484 Stainless pre-boarding forms at Acme have been in service for 12 years with minimum maintenance and no replacement. And, equally important, few rejects have been caused by snagging on rough metal. The surface of metal forms used previously would roughen with wear, requiring frequent rubbing with abrasives and polishes. But Stainless Steel is smooth to start with and *stays smooth.*

In final boarding, the forms themselves hold the steam. These forms, too, have been in service for 12 years and have kept their smoothness and undistorted shape. In addition, they maintain an even heat over their surface and reduce fluctuations during the operating cycle.

Two of the eight pre-boarding machines at Acme Hosiery Dye Works are shown in this picture. Each is equipped with 24 Stainless Steel forms.

Wherever you need a material that is kind to the fabric, that resists corrosion and abrasion, that keeps maintenance and replacement costs at a minimum, rely on Stainless Steel. And for unmatched performance, insist that your equipment fabricator use U·S·S Stainless Steel.

UNITED STATES STEEL COMPANY, PITTSBURGH · AMERICAN STEEL & WIRE DIVISION, CLEVELAND · COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
NATIONAL TUBE DIVISION, PITTSBURGH · TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. · UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

U·S·S STAINLESS STEEL

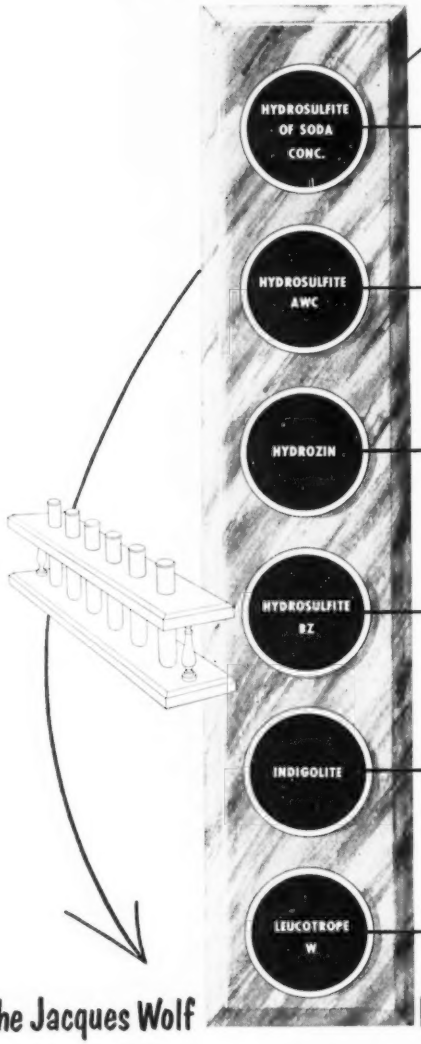
USS

SHEETS · STRIP · PLATES · BARS · BILLETS · PIPE · TUBES · WIRE · SPECIAL SECTIONS

3-961

UNITED STATES STEEL

For: Dyeing, Printing, Reducing, Stripping



REDUCING AGENT FOR VAT DYEING:

A pure, full strength Sodium Hydrosulfite ($Na_2S_2O_4$). A reducing agent for dyeing vat colors on cotton, rayon and other fabrics. Also HYDROSULFITE OF SODA Q.D. for immediate solubility in continuous vat dyeing machines.

APPLICATION & DISCHARGE PRINTING:

The highest strength of Sodium Formaldehyde Sulphoxylate. ($NaHSO_2.CH_2O.2H_2O$). For application printing of vat colors and for discharge printing on all textiles. Also used for stripping.

DISCHARGE PRINTING OF ACETATE:

A clear-dissolving, soluble Zinc Formaldehyde Sulphoxylate. ($Zn(HSO_2.CH_2O)_2$). For discharge printing on acetate dyed grounds. Also for stripping certain colors on wool, acetate and nylon.

STRIPPING WOOL STOCK:

This is a Basic Zinc Formaldehyde Sulphoxylate ($Zn(OH)HSO_2H.CHO$) used for stripping wool stock, Shoddy and rags.

DISCHARGE FOR INDIGO:

Mixture of Leucotrope W and Hydrosulfite AWC in the proper proportions to give a white discharge on Indigo-dyed grounds.

DISCHARGE FOR INDIGO:

Sulphonated quaternary base. For pure white discharges on Indigo-dyed grounds when mixed with Hydrosulfite AWC.

The Jacques Wolf Family of

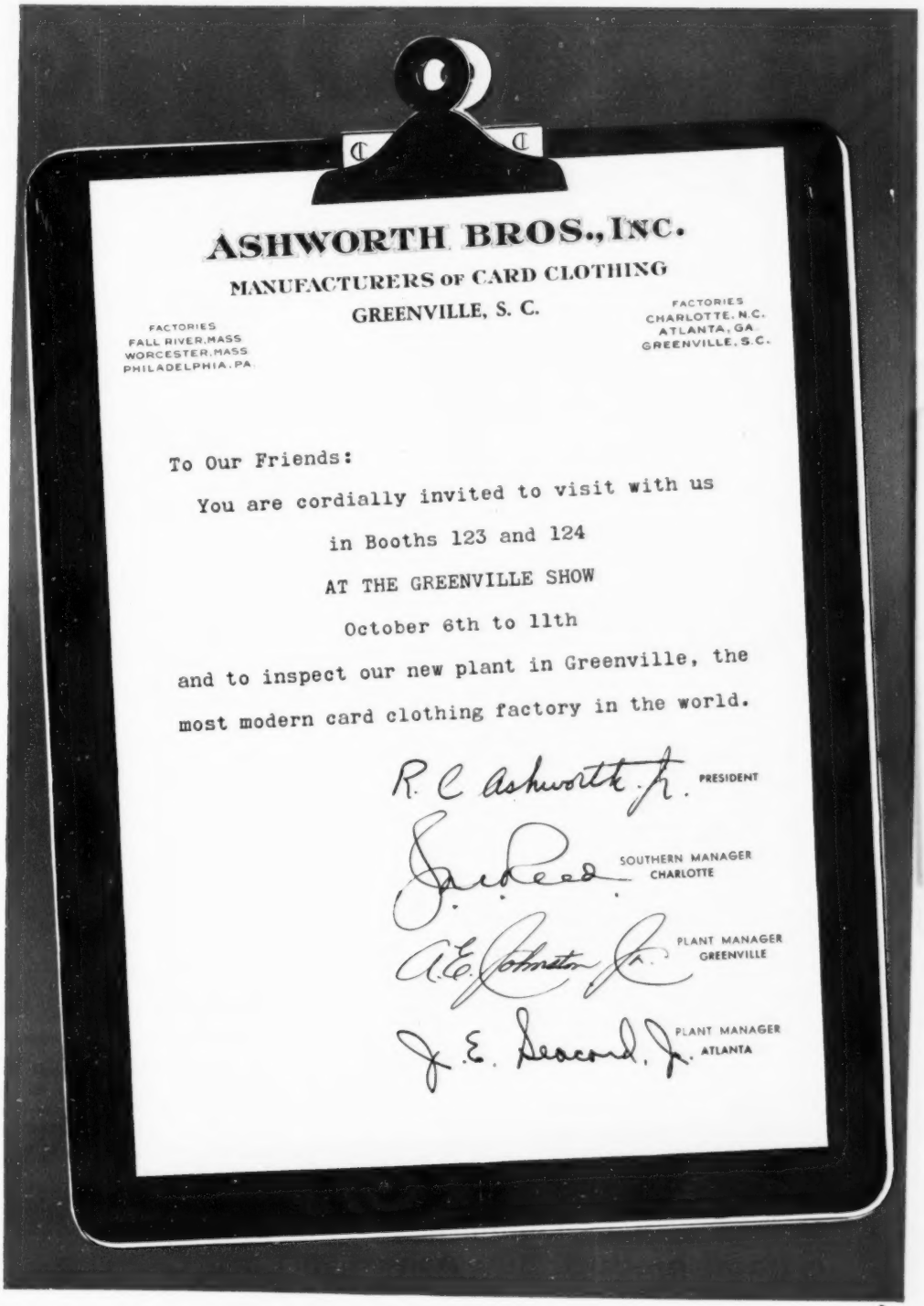
Hydrosulfites

Write today for complete information as to how a Jacques Wolf Hydrosulfite can help you do your job better. Samples for testing sent without obligation.

50th Anniversary

JACQUES WOLF & co.
Chemicals PASSAIC, N. J.

Plants in: Clifton, N.J., Carlstadt, N.J., Los Angeles, Calif.



ASHWORTH BROS., INC.

MANUFACTURERS OF CARD CLOTHING

GREENVILLE, S. C.

FACTORIES
FALL RIVER, MASS
WORCESTER, MASS
PHILADELPHIA, PA

FACTORIES
CHARLOTTE, N.C.
ATLANTA, GA
GREENVILLE, S.C.

To Our Friends:

You are cordially invited to visit with us

in Booths 123 and 124

AT THE GREENVILLE SHOW

October 6th to 11th

and to inspect our new plant in Greenville, the most modern card clothing factory in the world.

R. C. Ashworth, Jr. — PRESIDENT

J. J. Reed — SOUTHERN MANAGER CHARLOTTE

A. E. Johnston, Jr. — PLANT MANAGER GREENVILLE

J. E. Seacord, Jr. — PLANT MANAGER ATLANTA

Ashworth PIONEERS IN Card Clothing

TO BEST SERVE THE SOUTH WE MANUFACTURE IN THE SOUTH

At Greenville, S. C.

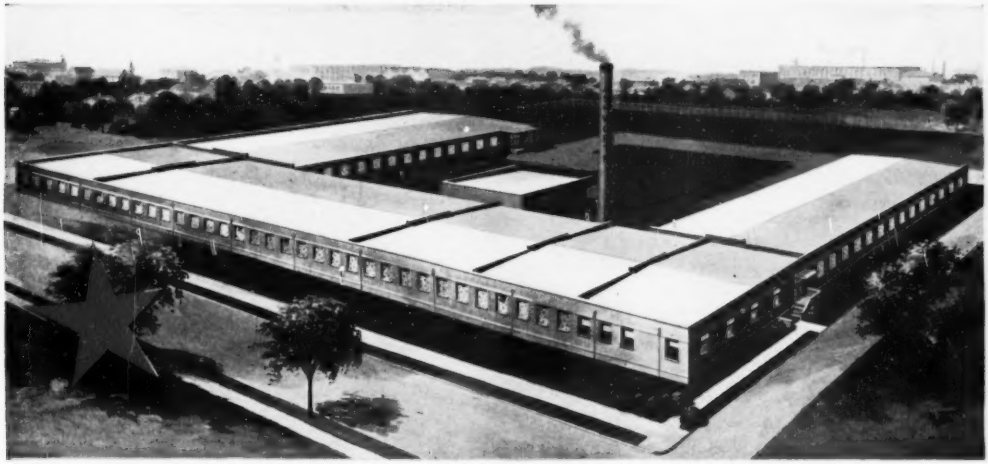
The founders of this company foresaw the expansion of the southern textile industry approximately 50 years ago, when they established a repair shop and card clothing distributing center in Charlotte, N. C., and later, similar centers in Greenville, S. C., Atlanta, Ga. and Dallas, Texas. Therefore, the completion of the new Ashworth factory in Greenville in 1949, far from being a radical departure, was merely the culmination of a policy initiated long ago — a policy whose objective was to provide goods and service in keeping with the growth of the industry in the area, as soon as conditions permitted. The Southern Textile Industry needed more and better card clothing service. To meet that need we now manufacture in Greenville in the most modern card clothing factory in the world.

ASHWORTH RENDERS A COMPLETE CARD CLOTHING SERVICE

As experienced carders know, the service that goes with card clothing is just as important as the clothing itself. That is why Ashworth service to the Southern Textile Industry includes the following:

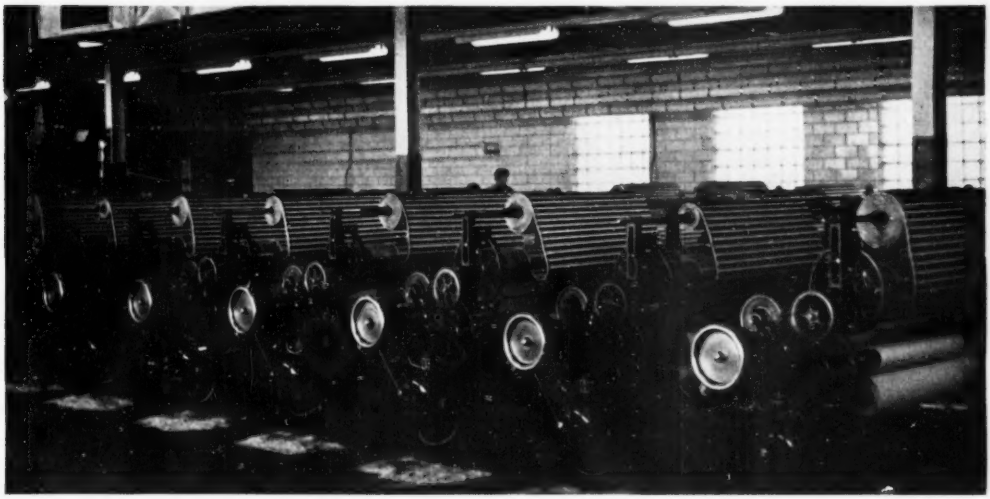
1. The manufacture at Greenville of card clothing of all types, assuring prompt delivery from that point and from Charlotte, Atlanta and Dallas, as well.
2. Reclothing of flats and rewinding of lickerins at Greenville, Charlotte, Atlanta and Dallas.
3. Competent, trained clothiers to install card clothing.
4. A staff of practical card men who, on request, will recommend the correct type of card clothing for the purpose and who will inspect your cards, recommend repairs and schedule them to involve a minimum loss of productive time.

Make sure of a *complete* service, as well as a good product. Buy Ashworth Card Clothing

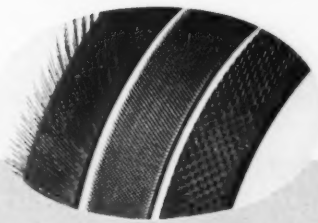


ABOVE
Exterior view of new Ashworth card clothing factory at Greenville, S. C. — the most modern in the world.

BELOW
Interior view of new plant at Greenville showing air conditioning and battery of machines making card flat clothing.

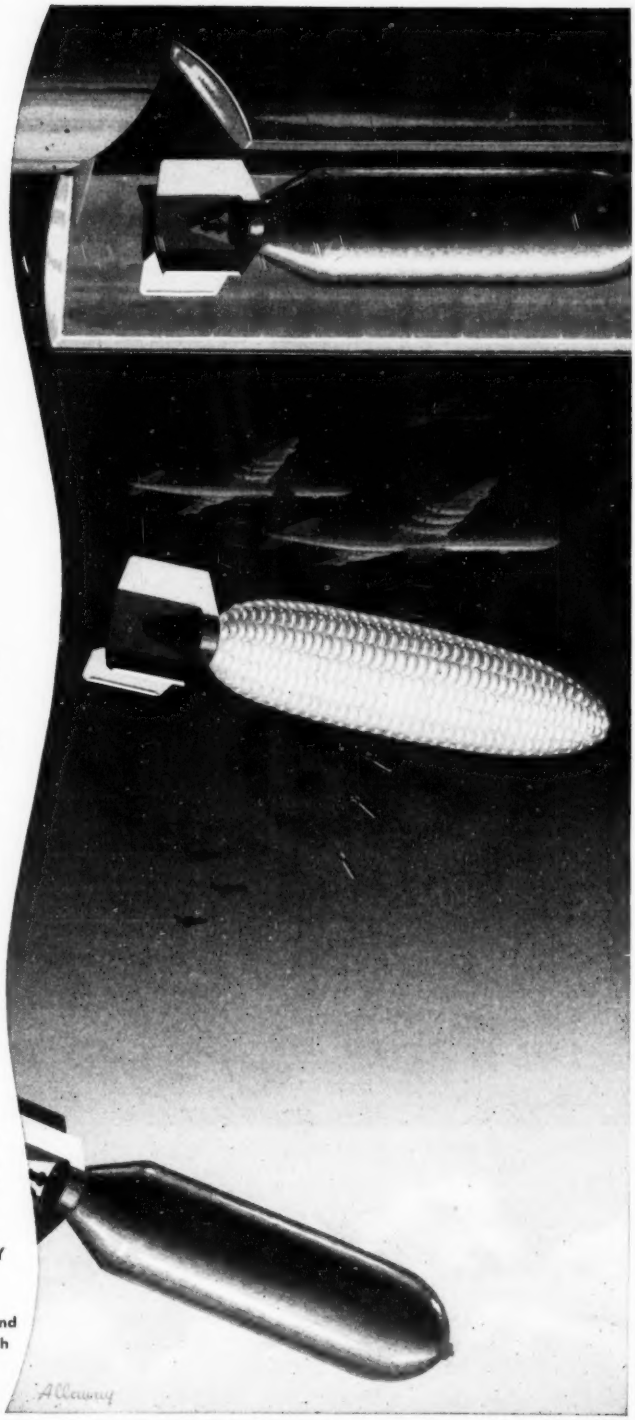


Ashworth BROS., INC.



Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)
Fall River*†‡ Worcester*‡ Philadelphia*†‡ Atlanta†‡
*Factory †Repair Shop ‡Distributing Point

What's corn doing 35,000 feet up?



The casing of the bomb . . . possibly the high explosives inside . . . both require the use of special corn products in the manufacturing process. These, and hundreds of other corn products, have been developed by the continuing basic research in corn that serves all American industry . . . serves you.

Corn products in textiles

In the textile field starches, gums and dextrines provide superior formula ingredients for many textile processes. New techniques involving the use of corn products are being developed as part of a continuing research program at Corn Products Refining Company.

If you have a production problem why not check with Corn Products. A complete line of corn products for every purpose is available. Technical service is yours . . . no obligation, of course.

CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York 4, N. Y.
Manufacturers of

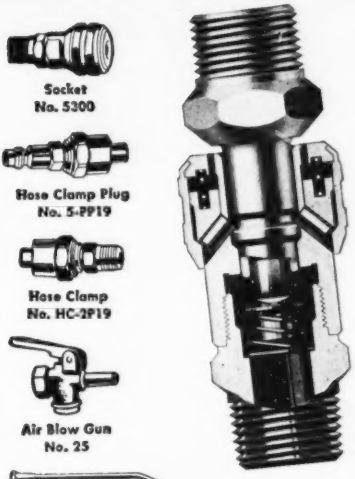
GLOBE brand dextrines, gums	GLOBE brand starch	EAGLE brand corn starch

Faster

More Thorough Removal of LINT

WITH HANSEN COUPLINGS AND BLOW GUNS

Photo—Courtesy Harriet Cotton Mills



Socket
No. 5300

Hose Clamp Plug
No. 5-PP19

Hose Clamp
No. HC-2P19

Air Blow Gun
No. 25

10" Extension Nozzle
No. 26

● Lint and fly can be quickly removed from carding machines, spinning frames and looms through the use of Hansen quick-connective couplings and an Air Blow Gun.

By equipping conveniently located air stations with Hansen quick-connective couplings, it is a simple matter to move from station to station with a short hose and the Hansen Air Blow Gun.

To connect the air hose at any station, you merely push the coupling plug into the socket—air is instantly and automatically available at blow gun.

To disconnect, just push back sleeve on coupling socket—plug immediately releases and flow of air is shut off at station.

Change-over from air blow gun to solvent spray cleaner takes only a few seconds.

Write for catalog and details.

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THE HANSEN MANUFACTURING COMPANY

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Don't give fire a FIGHTING CHANCE!

Here's why you get greater fire-killing punch . . . and more safety for the fire fighter . . . with a Kidde Dry Chemical Extinguisher:

The Kidde Extinguisher with its patented Diffuser Horn blankets the danger area with a cloudlike pattern of dry chemical. The chemical absorbs heat and sets up a cool "wall" between the operator and the fire. That makes it possible for even an inexperienced operator to cover a greater area. Danger from splashing of burning liquids is reduced.

For extra speed, efficiency and safety . . . insist on Kidde Portable Fire Extinguishers.

K Kidde

The word "Kidde" is the trade mark of Walter Kidde & Company, Inc., and its associated companies.

Walter Kidde & Company, Inc., 990 Main Street, Belleville 9, N. J.
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Kidde

"Tycol Alweave cuts spindle drag... reduces thread breakage... jumps production"

Right! The stability and lubricating value of Tycol Alweave Spindle Oils assure minimum wear and low power consumption, all helping to step up production by reducing drag and thread breakage.

A wide range of Tycol Alweave Textile Oils is specially designed in both mineral and compounded grades to cut costs in other processes in your mill.

For further information about Tycol Alweave Textile Oils, write, wire or phone your nearest Tide Water Associated office today.

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INDUSTRIAL LUBRICANTS

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Quality Is No Puzzle

For more than half a century loyal Cone employees, through their skill and manufacturing "know-how," have brought into being the Cone Seal of Service as a symbol of dependable fabrics. As a result there is pride in accomplishment and a sincere desire to maintain for Cone fabrics the highest standards of quality.

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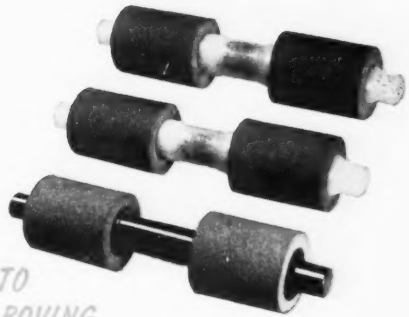
PATENTS PENDING

Here is the way

- to improve uniformity of yarn;
- to obtain consistent tensile strength;
- to eliminate all oiling expense;
- to greatly reduce picking cost; cycle extended to as much as once in 8 weeks:
- to get cleaner yarn free from oil.



SEE THEM AT BOOTH 352 GREENVILLE

THESE ROLLS APPLICABLE TO ALL SPINNING AND ROVING

FOR FURTHER INFORMATION ADDRESS

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CLIMAX ROLLS ARE MADE BY MACHINECRAFT, INC., WHITMAN, MASS.

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CLIMAX BALL BEARING TOP ROLLS ADOPTED BY *Whitin* **MACHINE WORKS** and supplied on Whitin machinery as standard where anti-friction rolls are required. Climax Rolls are available through Whitin Machine Works and all of their agents.

tomorrow's production

with yesteryear's frames?

THE SIXTY-FOUR DOLLAR QUESTION confronting many mills is "How can we make our yarn output competitive . . . in quality, quantity, and cost . . . and still utilize our old band-driven or old-style tape-driven frames?"

Scores of mills have found a profitable and highly satisfactory answer to this question in "Meadows Modernizers" . . . individual drive pulleys, ball bearing tape tension pulleys—that assure even tension at all times—a more uniform speed and twist—fewer ends down.

If it's changing from band to tape-drive . . . cutting and lengthening frames . . . replacing troublesome cylinders on long tape-driven frames, or even changing the gauge and ring size . . . or merely accessories such as tension pulleys, separator shields, saddles, etc.—consult us before making final decision, and let us give you the benefit of our experience along this line.

Ball Bearing Tension Pulleys

•

Individual Drive Pulleys

•

Aluminum Alloy Separators

•

Silent Chain Drive

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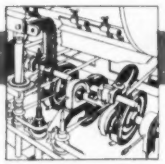
High-Strength Polished Steel Shafting, mounted on Heavy Duty Self-aligning Ball Bearings



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Representatives:

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For forecast colors as well as perennial favorites for both natural and synthetic fibers, select from the Sandoz line of chrome, acid, acetate, direct dyes, and auxiliary chemicals: detergents, dyeing assistants, finishes.

VOGUE says

Green
–growing colour"

Sandoz has the dye you need

FOR WOOL PIECE DYEING

with the best possible fastness to light, water-spotting and perspiration:

Alizarine Light Blue 4GL
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FOR BRIGHTER GREENS

Sandoz recommends as a base component the brightest, fastest piece dye blue of all:

Brilliant Alizarine Light Blue 3F Pat.
along with
Xylene Light Yellow 2G or 2GP

FOR WORSTED TOP OR RAW STOCK

to produce many of the popular shades, *without any shading colors* – for men's and women's wear "fancies":

Metomega Chrome Fast Green G

FOR SPUN RAYON

Cuprofix Blue FGL
Pyrazol Fast Orange 4G
Pyrazol Fast Yellow RSW

On fabrics to be anticreased, these colors provide maximum fastness to light, perspiration and washing when treated by the combined Cuprofix/Resin method.

You can depend on Sandoz to provide the best colors to meet your specified requirements.

SANDOZ

thinks ahead with textiles

SANDOZ

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y. Sales Offices: Boston, Providence, Fairlawn, N. J., Philadelphia, Charlotte, Chicago, Los Angeles, Montreal, Toronto.

To insure WASHABILITY
in direct-dyed rayon and cotton fabrics
use SANDOFIX · WE

SANDOFIX · WE insures clear, wash-fast colors. It is the outstanding assistant for producing saleable rayon sports fabrics at an attractive cost ★ Colors will not migrate in direct-dyed rayon and cotton when fixed with an after-treatment of **SANDOFIX · WE** ★ It increases fastness to washing and perspiration . . . makes fabrics more resistant to hot-wet pressing. **SANDOFIX · WE** also preserves acetate white effects ★ **SANDOFIX · WE** prevents "marking-off" . . . assures clearness of design in printing. Reliable results are obtained by using **SANDOFIX · WE** during the rinsing operation either in rope form or in the open width soaper ★ Write Sandoz for detailed information.

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For forecast colors as well as perennial favorites—select from Sandoz' line of chrome, acid, direct dyes and auxiliary chemicals for both natural and synthetic fibers.

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PRECISION SPEED CONTROL FROM YOUR A.C. LINES

The real answer to many of your operating and production problems is right here — with the Louis Allis Select-A-Spede Drive, featuring the new Magnetic Amplifier Control. This drive provides unusual flexibility and positive control — flexibility and control you never thought possible from an A.C. line. You get increased production from your machines, fewer operating headaches, with the exact speed you need for your job — when you want it, where you want it.

Check these Select-A-Spede features:

A size for practically every need — units up to 150 horsepower.

Trouble free operation — as a result of advanced design and the use of industrial duty components.

Stepless speed range — from 1/8 base speed or less to greater than base speed. Special designs permit speed ranges to five times base speed where required. A wide variety of optional features are available, too: inching, jogging, sequence control, reversing, dynamic braking, and multi-motor ranges.

Superior speed regulation — even at low threading speeds — better than required on most machines. Use of the magnetic amplifier and a special anti-hunt circuit maintains speed constant regardless of load.

Complete protection — against overload and runaway.

Clean, filtered air — supplied under pressure to power unit. Keeps dust and dirt out — reduces maintenance.

There are probably many operations in your own plant right now where a Select-A-Spede can save you time and trouble — boost production and efficiency.

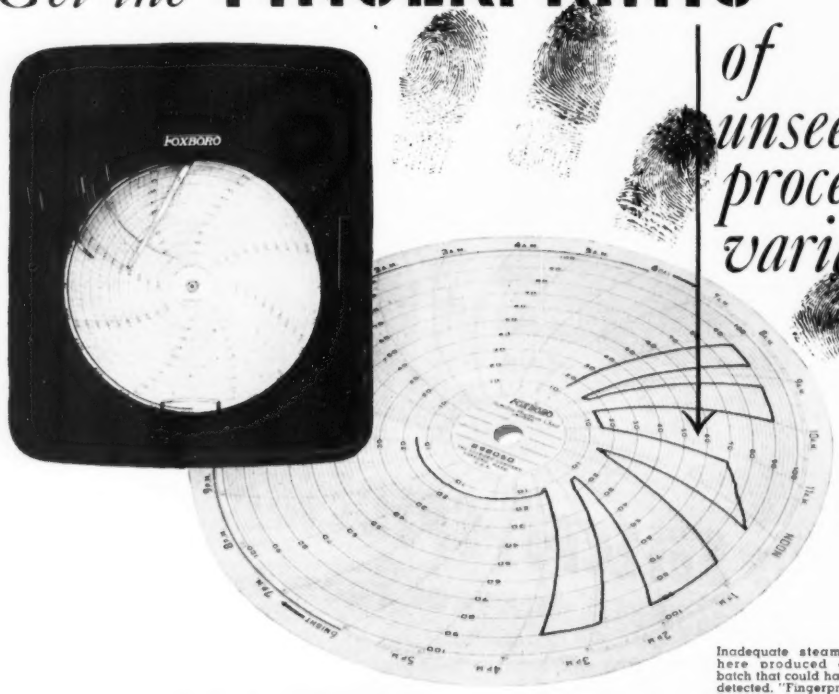
Look into this drive's many unusual, practical features. Write today for further information about the money-saving advantages of the Louis Allis Select-A-Spede or contact the district office nearest you.

SA-101

THE LOUIS ALLIS CO., Milwaukee 7, Wisconsin

Standard or special — we build it. Whatever electrical or mechanical modifications or features you need, there is a Louis Allis motor that will do your toughest jobs better.

Get the "FINGERPRINTS" *of unseen process variations*



Inadequate steam pressure here produced off-quality batch that could have gone undetected. "Fingerprints" on the Foxboro record gave timely warning for quick correction.

. . . with Foxboro Recorders for temperature, pressure, flow

Off-standard processing leaves its telltale fingerprints, clearly and unfailingly, when Foxboro Recorders are on the job. Only at neglected points can it go undetected. To reduce the chances of off-quality batches in your operation, cover *all* the critical process variables, *now* . . . by installing additional recorders.

For the highest accuracy and dependability under day-in, day-out service, be sure to specify Foxboro Recorders — for temperature, pressure, and flow. Precision engineering, plus skillful manufacture result in instruments of the highest quality. Their ultra-sensitive mechanism responds instantly to the slightest variations — writes them down, continuously, and without attention except routine changing of charts.

Now is the time to bring your process instrumentation up to date. A small investment in instruments today can repay you every day for years to come. Write for information. **The Foxboro Company, 489 Neponset Ave., Foxboro, Mass., U.S.A.**

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FACTORIES IN THE UNITED STATES, CANADA, AND ENGLAND

FOR COTTONS

Houghto-Size sizing compounds . . . concentrated . . . provide high weave room efficiency. For slicker warps with excellent fiber lay, also use Houghto-Wax in the size kettle.

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Sulfol 448, non-ionic stock lubricant for woolens and worsteds—minimizes static—is odorless, non-staining, non-corrosive. Also Lanolubric wool oils, well known for over half a century for their dependable performance.

FOR SYNTHETICS

Raylubric oils for softening, soaking and throwing rayon and synthetic fibers.

. . . products of

You can control UNIFORMITY when you use Houghton Textile Processing Products

For scouring and wetting applications, remember these Houghton surface active agents:

CERFAK . . . the trade name to specify when *detergency* is the chief factor you want.

SURFAX . . . selected whenever exceptionally good *wetting* and *re-wetting* power is needed.

Ask your Houghton Man for full information or write E. F. Houghton & Co., Philadelphia 33, Pa.

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Engineers and Manufacturers
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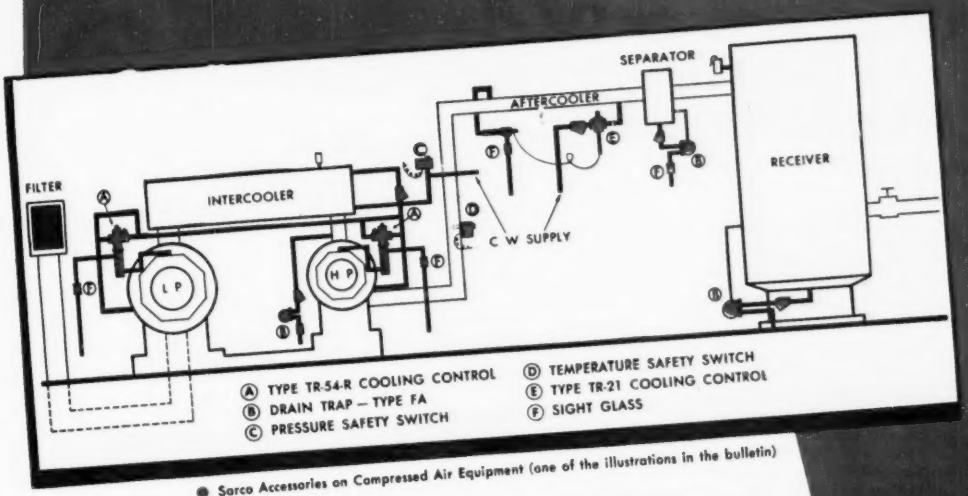
LARGEST MANUFACTURERS OF CALENDER ROLLS IN THE WORLD

to help you solve your

AIR COMPRESSOR PROBLEMS...

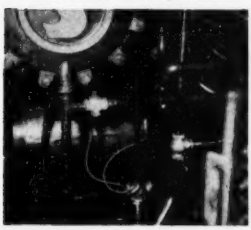


● Sarco Accessories on Compressed Air Equipment (one of the illustrations in the bulletin)

write for

TECHNICAL BULLETIN 5-CO...

● Sarco type TR-21 Cooling Control on Air Compressor.



● Sarco type FA Float Trap draining separators.

THIS BULLETIN is designed to pass on to you the experience of compressed air users and of SARCO engineers, in improving equipment operation without excessive outlay.

You will find also simple hook-ups of SARCO cooling controls, and of drip traps which eliminate condensation from intercoolers, aftercoolers, separators and receivers.

SARCO SPECIALTIES FOR COMPRESSED AIR include also: ELECTRIC SAFETY CONTROLS to shut down the compressor or sound an alarm when the temperature or pressure gets too high or too low in the cooling, lubricating or air systems; and a complete range of pipe line strainers.

Practical advice on how to improve operation of your air compressor—free in Bulletin TB-5-CO.

359

SARCO COMPANY, INC.
EMPIRE STATE BUILDING, NEW YORK 1, N. Y.
SARCO CANADA LTD., TORONTO 8, ONTARIO

REPRESENTED IN PRINCIPAL CITIES

STOP HEAT WASTE

and excessive maintenance of unit heaters . . . Install

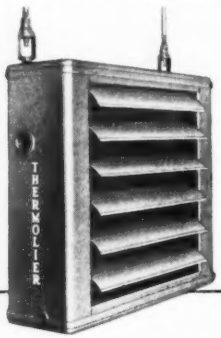
TEXTILE THERMOLIERS

Unit heating obviously is the most economical, flexible type of heating for textile mills. But there can be a "*catch*" in this . . .

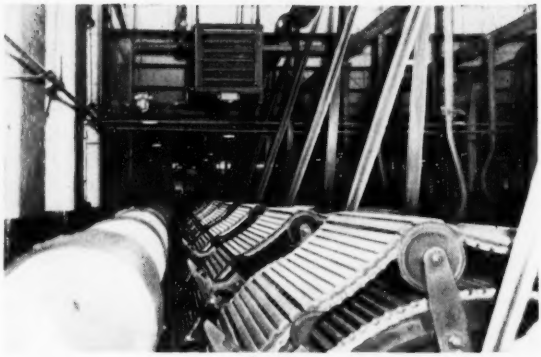
For the fins of heating elements on conventional unit heaters can turn out to be "*dust and lint catchers*" — often plugging the heating element solid in a few days.

To correct this condition, Grinnell designed the Textile Thermolier with a special heating element. This element consists of a series of webbed, pitched U-tubes parallel to one another and assembled into a single header. An extension of the web on the trailing side increases the heating area, while the absence of conventional fin edges minimizes the collection of lint, fly and dust on the heating surface.

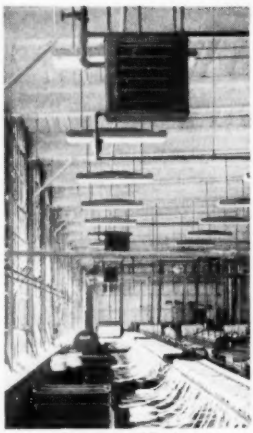
That's why Textile Thermoliers stop heat waste and excessive maintenance — stay cleaner, with practically no service. Get the full facts about Textile Thermoliers today.



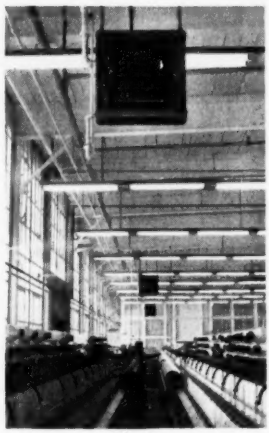
- Parallel openings between the webbed tubes permit air from fan to pass through and keep heating element clean.
- Safety and durability assured with leakproof tube-to-header construction.
- Maximum capacity provided at all times and annoying and destructive water hammer eliminated because built-in pitch of tubes and internal cooling leg assures the continuous drainage of the condensate.
- Plain thermostatic trap, the simplest and least expensive kind of trap, may be used because of Thermolier's exclusive internal cooling leg.



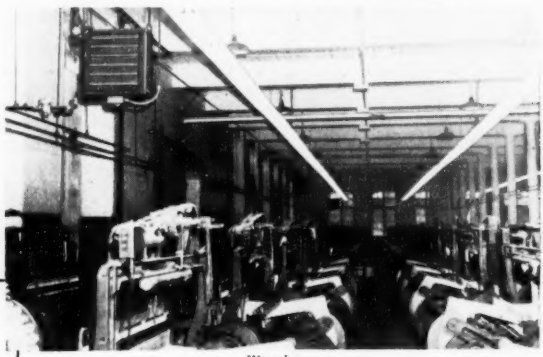
Carding



Drawing and Roving



Spinning



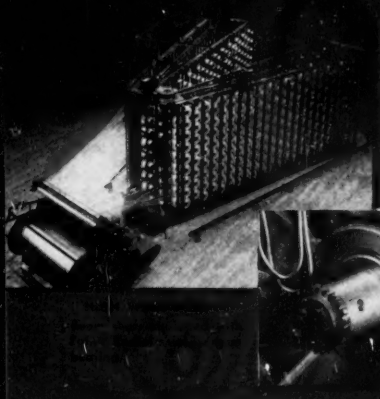
Weaving

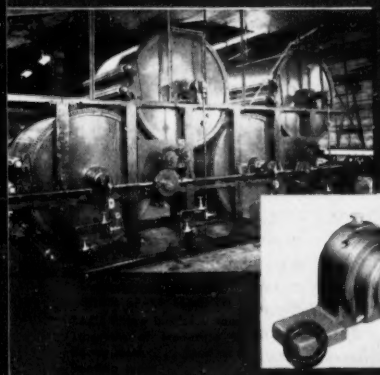
GRINNELL

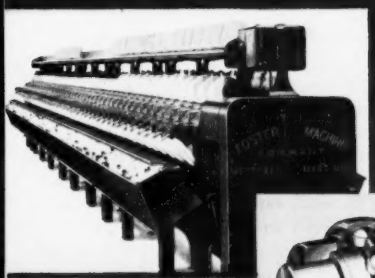
WHENEVER PIPING IS INVOLVED

Grinnell Company, Inc., Providence 1, Rhode Island • Coast-to-Coast Network of Branch Warehouses and Distributors

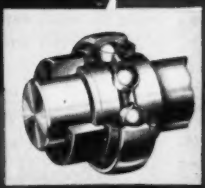
pipe and tube fittings • welding fittings • engineered pipe hangers and supports • Thermolier unit heaters • valves
Grinnell-Saunders diaphragm valves • pipe • prefabricated piping • plumbing and heating specialties • water works supplies
industrial supplies • Grinnell automatic sprinkler fire protection systems • Amco air conditioning systems

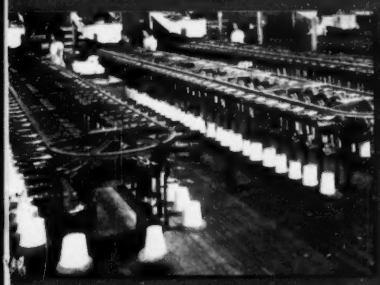






WINDER
Fafnir Mechani-Seal Wide Inner Ring Bearing with Self Locking Collar.





AUTOMATIC SPOOLER
Fafnir Radial Type Bearings, available in standard shaft sizes and with various arrangements of seals and shields.

TURNING POINTS
to closer quality control
in Winding, Warping and Slashing

Cleaner, faster production and lower maintenance costs aren't the only advantages of ball-bearing-equipped winding, warping and slashing machines. Better quality control is "in the cards" too. For example, on Fafnir-equipped high speed winders, records show more uniform package density . . . on warpers, even length warps are assured. On high speed slashers, there's less strain on the warp when cylinders and creels are mounted on Fafnir Ball Bearings.

There's a Fafnir Ball Bearing or Complete "Packaged" Unit for every turning point, for every standard textile machine, for every textile operation from opening to finishing. Each of these bearings is the most advanced design, such as the Fafnir Wide Inner Ring construction with self-locking collar . . . easiest of all bearings to install. Check all the advantages . . . send for descriptive catalog. The Fafnir Bearing Company, New Britain, Connecticut.

Other FAFNIR UNITS for Winding, Warping and Slashing

- Cylinder Unit for Rotary Steam Joint Adaptation . . . Cohoes Slasher
- Cylinder Unit for Rotary Steam Joint Adaptation . . . Saco-Lowell Slasher
- Size Roll Unit Saco-Lowell Slasher
- Slasher Creel Stand Unit
- Rear Cone Unit . . . Saco-Lowell Slasher
- Front Cone Unit . . . Saco-Lowell Slasher
- Pressure Roll Unit
- Squeeze Roll Unit

FAFNIR
BALL BEARINGS

MOST COMPLETE LINE IN AMERICA

THIS IS NO. 94 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation

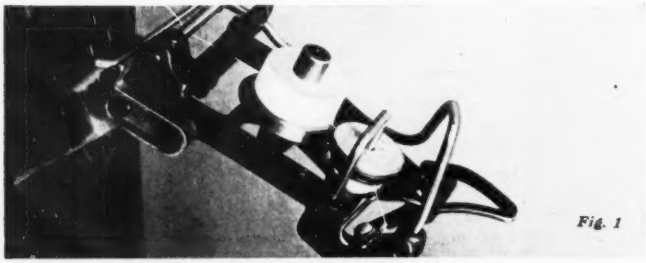


Fig. 1

Fig. 2

HOW TO REDUCE PARAFFIN VARIATION

Mills using the paraffin attachment on their Roto-Coners* sometimes run into the difficulty of varying amounts of paraffin being applied to the yarn. That is, the amount of paraffin applied when the cake is new varies from the amount applied when the cake is almost used.

The following suggestion is a simple solution to this problem. Instead of using one cake at a time, start with two cakes. When the bottom cake wears away, place another cake on the holder. This greatly decreases the variation as there will always be one full cake on the holder plus at least a portion of another cake.

The cake holder on the Roto-Coner* is long enough to hold both cakes as the thickness of the paraffin cakes we specify is 11/16 inches.

Now, how much difference does this procedure make in the variation of amount of paraffin applied to yarn?

One cake weighs approximately 250 grams. If it is used alone and allowed to wear away as shown in Figure 1, it will result in a ratio of variation of 250 to 0. On the other hand, when two cakes are used, as shown in Figure 2, the variation is only 500 to 250 or 2 to 1.

HOW TO START AN END WHEN SIZING SINGLE END NYLON

When sizing single end nylon, a practice generally followed is to *lap* the end onto the sizing tube instead of tying a knot.

Some operators, in an effort to start a spindle as quickly as possible, may take the yarn directly from the supply package and wrap it around the revolving sizing tube *before threading the end through the tension and thread guide*. In this case the yarn from the time it is lapped onto the tube until threaded through the tension and guide, is *not* under control. It delivers loosely without tension directly from supply package to take up tube. It may be thrown over end of the tube possibly lodging between expander and starting handle and wrapping around the spindle.

This can be prevented by the following procedure:

1. Stop the spindle.

2. Take end of yarn from supply package and thread it through tension and guide.

3. Wrap end of yarn around sizing tube.

*Reg. U. S. Pat. Off.

23.2.12

August, 1952

WINDING AND TWISTING MACHINERY FOR NATURAL AND SYNTHETIC YARNS

UNIVERSAL WINDING COMPANY

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Here's a softener that has demonstrated its ability on a wide variety of urea and melamine-treated fabrics. It not only gives greatly improved sewability, but has excellent bath compatibility with these resins as well as with anionic and cationic finishing materials.

XYNO FINISH 9909

was specifically designed for use with urea and melamine resin finishes. It possesses the following additional field-proved advantages:

- Extremely or highly resistant to yellowing at elevated temperatures
- Does not reduce light fastness of fabrics dyed with colors ordinarily susceptible to substantive softeners
- Excellent plasticizing action on resin finishes
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Try it!

A trial of Xyno Finish 9909 will convince you of its superior performance. Write for data sheet and let us know how much of this softener you want for test purposes.

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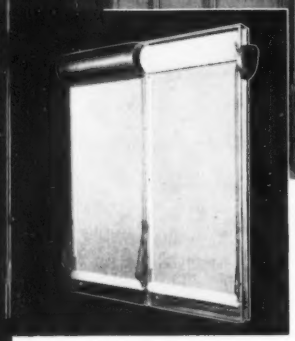


NEW AUTO-AIRMAT

VERTICAL SECTIONS OF AUTO-AIRMAT

Screen is rotated by a 1/6 H.P. motor. One drive assembly handles up to six sections. Operation is fully automatic.

It rounds out the AAF Line, offering a specialized automatic filter for the textile industry. It is designed especially for cleaning recirculated air with heavy lint content —the big problem of the industry.

This new unit has a filter medium of Airmat* Paper which rolls on a rotating screen in the path of the air stream, gathering lint and rolling it into an easily removed package at the bottom of the unit. The rate at which the unit works is automatically controlled by a pressure switch which activates the moving screen each time the resistance builds up to a predetermined point. This offers dependable filtering with simplified maintenance. This dry-type filter is fully automatic—first in the field!

AAF'S ELECTRO-MATIC

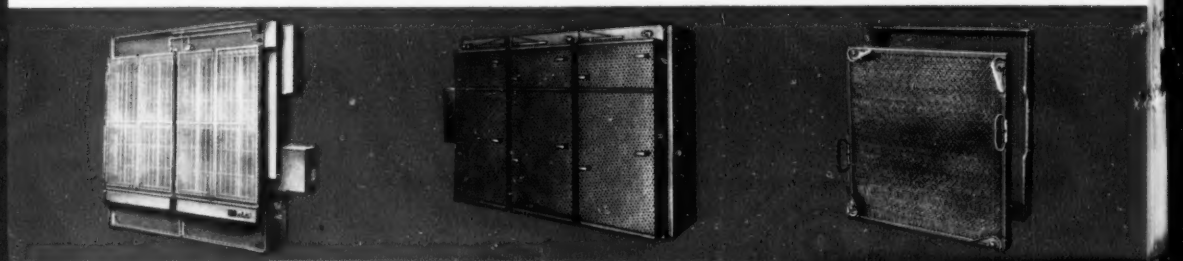
has a self-cleaning feature to simplify maintenance. This electronic precipitator is automatic, requires no oiling or washing of collector plates. Complete factory-assembly provides fast installation.

ELECTRO-CELL

AAF designed this unit with vertical sections. Removable plates allow tank cleaning, manual "in-place" washing or automatic washing.

AAF'S HV-2

This high velocity filter handles up to 500 F.P.M. yet is effective when used with lower velocities. No through-air passage, thus collected material is not dislodged to re-enter air stream.



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with the only complete line

of air cleaners for the textile industry

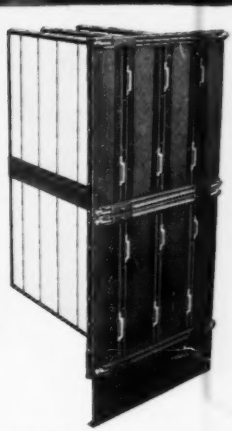
AIRMAT LINT ARRESTER

Here's your answer to the problem of troublesome lint and dust in the air exhausted from picking, opening and similar machines. Conserves heat or air that is humidity controlled by recirculating cleaned air to workrooms.

Valuable floor space can be conserved with the AAF Lint Arrester because a minimum of space is needed for settling chamber or dust basement. Easy to install too—it's built from standard units.

★ ★ ★

**AIRMAT is the trade-mark (Reg. U.S. Pat. Off.) of the American Air Filter Company, Inc., for various air filters, dust collectors and filtering media.*

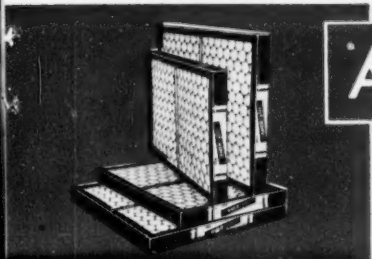


ASSEMBLY OF AIRMAT UNITS

in the Lint Arrester. Note wide pocket spacing, no ledges for lint build-up. Any number of these units may be used as needed to handle a given air volume.

AMER-GLAS REPLACEABLE FILTER

Where forced air requires an efficient filter of the "throw-away" type, use this new AAF product. Media of continuous glass filaments is thermoplastic bonded; coated with fireproof Viscosine. Five standard sizes, two different thicknesses.



AT THE SHOW....

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AAF

For specialized problems of air cleaning and complete information write direct to

American Air Filter

COMPANY, INC.

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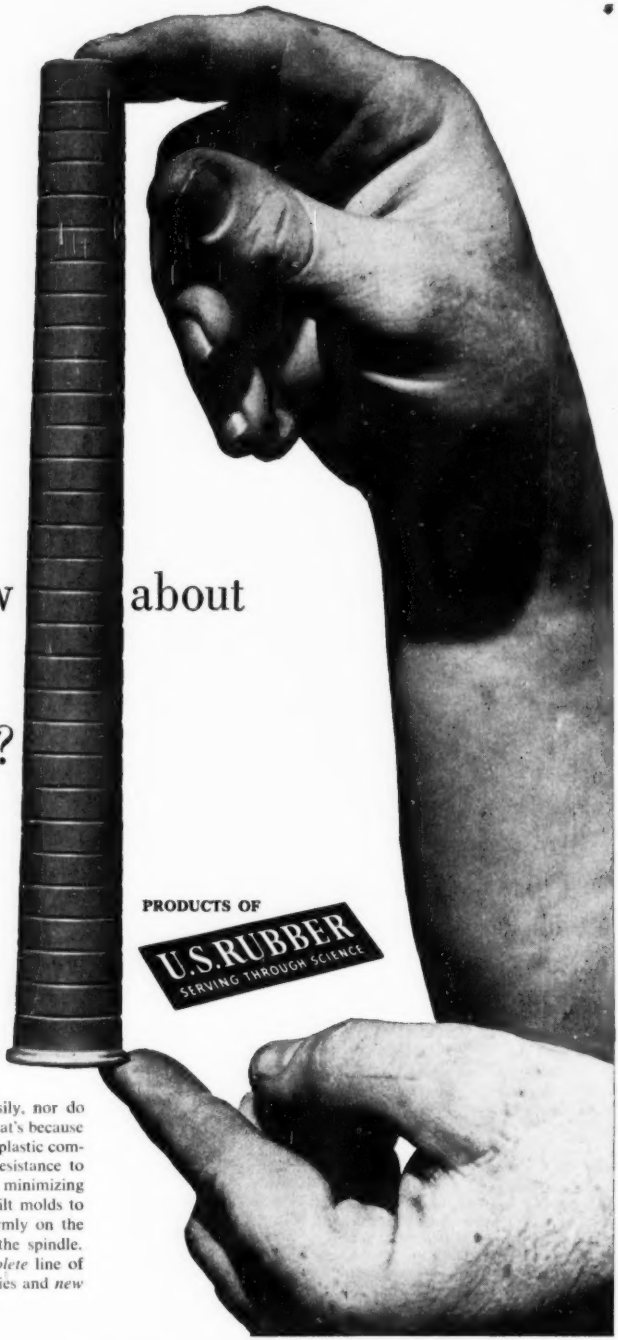
What's new about U. S. Rubber's warp tubes?



First, they do not crush easily, nor do they chip, splinter or roughen around the ends. That's because they are made of Uscolite, the sensational rubber-plastic compound. Uscolite warp tubes provide maximum resistance to abuse in a thin-walled tube. They hold yarn well, minimizing sluffing. Because they are molded in precision-built molds to close tolerances, Uscolite warp tubes seat uniformly on the spindles. There is never any working down on the spindle.

United States Rubber Company makes a *complete* line of textile mill specialties, incorporating *new* economies and *new* highs in product quality. Write to address below.

UNITED STATES RUBBER COMPANY

MECHANICAL GOODS DIVISION · ROCKEFELLER CENTER, NEW YORK 20, N. Y.

Tight Squeeze Between Spinning Frame and Drive No Longer a Problem!

HERE'S NEW CONVENIENCE for textile mills! Problem of sheave adjustment caused by placing drive close to spinning frame is now licked. New sheave can be adjusted easily from motor side.

Hand in hand with this improvement is a change to special locking and adjusting screws with a through-hole in the head of each. This permits use of a straight round lever rod. Eliminates fumbling with a screw driver, and makes speed adjustment easier than ever before.

In addition, this new wide range *Vari-Pitch* sheave is now the fastest mounting sheave of its type on the market. It is supplied with the easy-on easy-off *Magic-Grip*, tapered sleeve bushing with tight clamp fit the full width of the sheave.

PROVED IN OPERATION

A large number of these sheaves are now providing trouble-free service and new standards of accessibility on spinning frame drives.

Get complete engineering data. Call your nearby Allis-Chalmers distributor or district office, or write Allis-Chalmers, Milwaukee 1, Wis.

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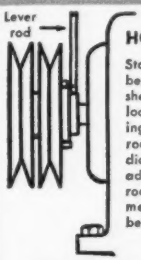

HOW IT WORKS

Stop drive and release belt tension. Release sheave mechanism by loosening just one locking screw, using lever rod. Then adjust pitch diameter by turning adjusting screw with rod. Retighten sheave mechanism; readjust belt tension.

GET COMPLETE FACTS

Allis-Chalmers
Milwaukee 1, Wisconsin

Please send me complete engineering information 20S7811.

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Company .....

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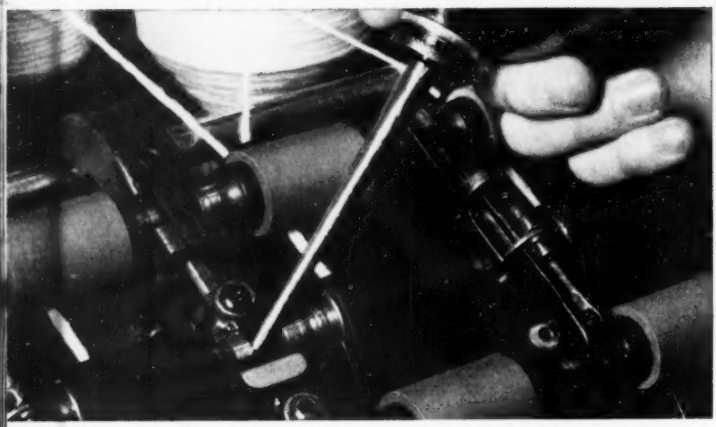
A-3826

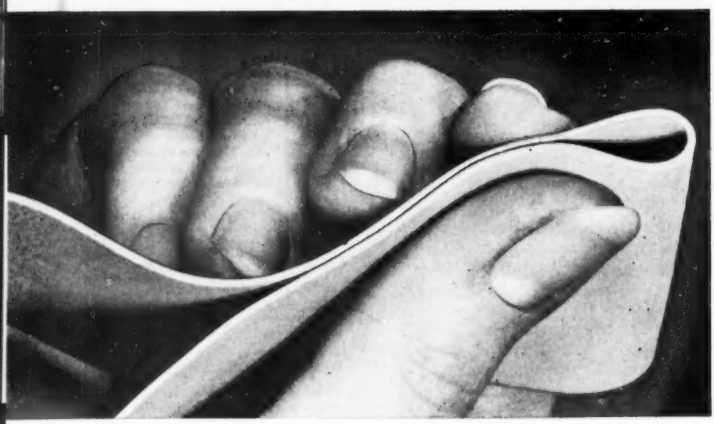
A-C ALLIS-CHALMERS

ALLIS-CHALMERS

SMOOTH FINISH. Accotex Aprons are smooth as satin. Each is ground to the exact thickness you specify and then given Armstrong's patented finishing treatment for lasting smoothness and scuff resistance.



CLEAN RUNNING. Accotex Aprons don't absorb oil or soften from exposure to dyes or commonly used textile solvents. They won't sweat and won't pick up lint. That's why Accotex Aprons run clean for years. Try them on a test frame and see.

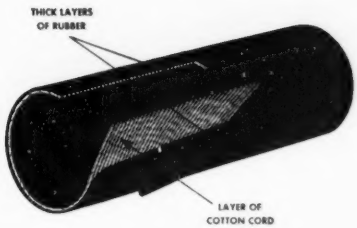


SUPER FLEXIBLE. This Accotex NO-750 is specially made for single-apron frames. It has the extra flexibility needed to hug the nose bar tightly. Its seamless construction assures good drafting and smooth slip-roll action.

ARMSTRONG'S ACCOTEX APRONS

One of Armstrong's complete line of textile mill supplies

Get 6 to 8 years of continuous two-shift spinning with these Accotex Aprons



Here's on-the-frame performance that's hard to beat. In most types of service, you get six to eight years of trouble-free two-shift operation from Armstrong's Accotex® Aprons.

Even better, at the end of that time, under normal conditions, they'll still be smooth, flexible, and clean running.

This kind of long, consistent service is not unusual. In fact, if you are not using these modern synthetic aprons, you can double the apron life you now get by using Armstrong Accotex Aprons. Accotex Aprons spin long and well because of their patented three-layer construction, as shown at the left.

The seamless outer layer is made of a synthetic rubber that's chemically treated to resist scuffing and stay smooth for years. The strong cotton cords in the middle layer prevent any stretching and also guard against curled edges. The inner layer, also seamless, is made of synthetic rubber specially compounded to resist abrasion.

When these three layers are vulcanized together, they form a seamless, one-piece apron that combines toughness and super flexibility with smooth, clean drafting.

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AHCOVELS* give fabrics a softness you can *see*. You don't have to touch the fabric to know that here is the softest, silkiest hand you ever felt! AHCOVEL-finished fabrics drape softer, too!

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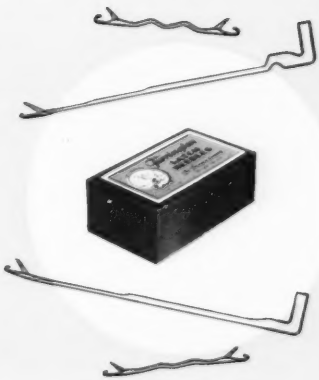

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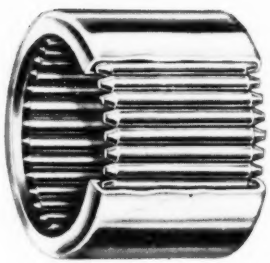

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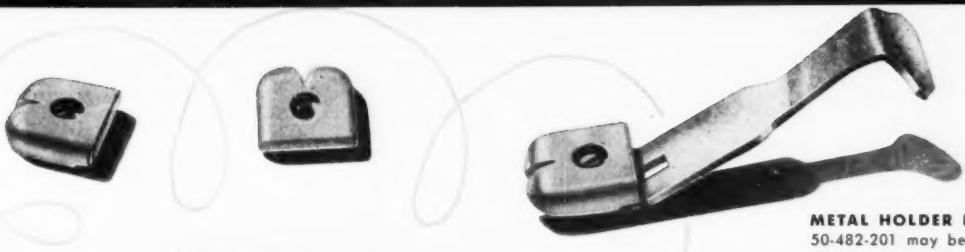

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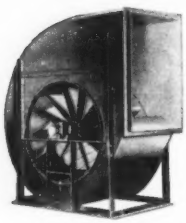

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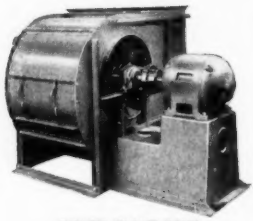

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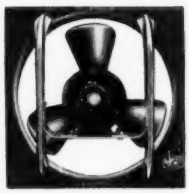

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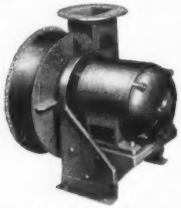

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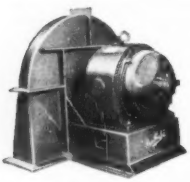

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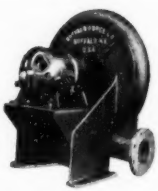

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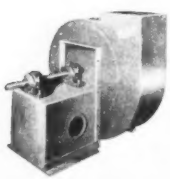
Larger versions of "Buffalo" "E" Blowers in sizes from 50 to 1600 c.f.m., for pressures up to 40" of water.



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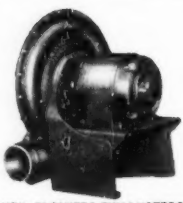

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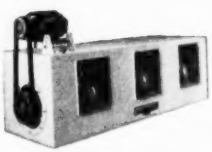

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MILL A—55-45 wool-rayon blend. Applied 1.5% Syton to wool stock; then blended before carding. Front roll speed increased from 105 to 139 r.p.m.—resulting in over 30% increase in production.

MILL B—50-50 wool-rayon blend. Applied 2% Syton, 3% oil emulsion. Stock carded well and was spun to 3⅛ run yarn. Tensile strength increased from 75 to 89 lbs.—a gain of 18%.

MILL C—80-20 wool-nylon blend. Applied 2% Syton, 4% oil to wool stock; then blended with nylon. Overseer attributed improved spinning to uniformity of sliver and yarn.

MILL D—50-50 wool-Dynel blend. Applied 1% Syton, 2½% oil (based on weight of wool) to blended stock. Spun to 6 run. Good control of fibers, smooth, uniform yarn noted.

MILL E—50-50 wool-viscose blend. Applied 1½% Syton, 3% oil to wool; then blended with rayon. Mill had used Syton for 18 months on blends, including virgin and darnetted wool, acetate, viscose, and nylon, with consistently good results.

New yarn strength and uniformity . . . with SYTON

Whatever you're cooking up . . . in the way of blended fabrics . . . a dash of SYTON can do wonders for it.

Mill experience across the country shows definite, measurable increases in the strength, uniformity and spinning qualities of wool blends that have been given the benefit of Monsanto's silica sol additive.

- Sytonized wool-rayon yarn is 10-30% stronger.
- Smooth rayon staple approaches the spinning behavior of serrated wool fiber when Syton is applied to control inter-fiber slippage.
- Ends down are reduced . . . finer counts (or equal yarn strength with *less* twist) are standard . . . production is improved all along the line.

What better reason to *ask today* for complete information on how mill men are stepping up their operations and cutting costs with SYTON.

Syton: Reg. U. S. Pat. Off.

MONSANTO
CHEMICALS—PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

MONSANTO CHEMICAL COMPANY, Textile Chemicals Dept., Desk TIT 39, Everett Station, Boston 49, Mass.

Please send me information on Syton.

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Company _____

Address _____

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L. F. Dommerich & Co., Inc.

Executive and General Offices

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For Manufacturers and Merchants

Inquiries as to our services solicited

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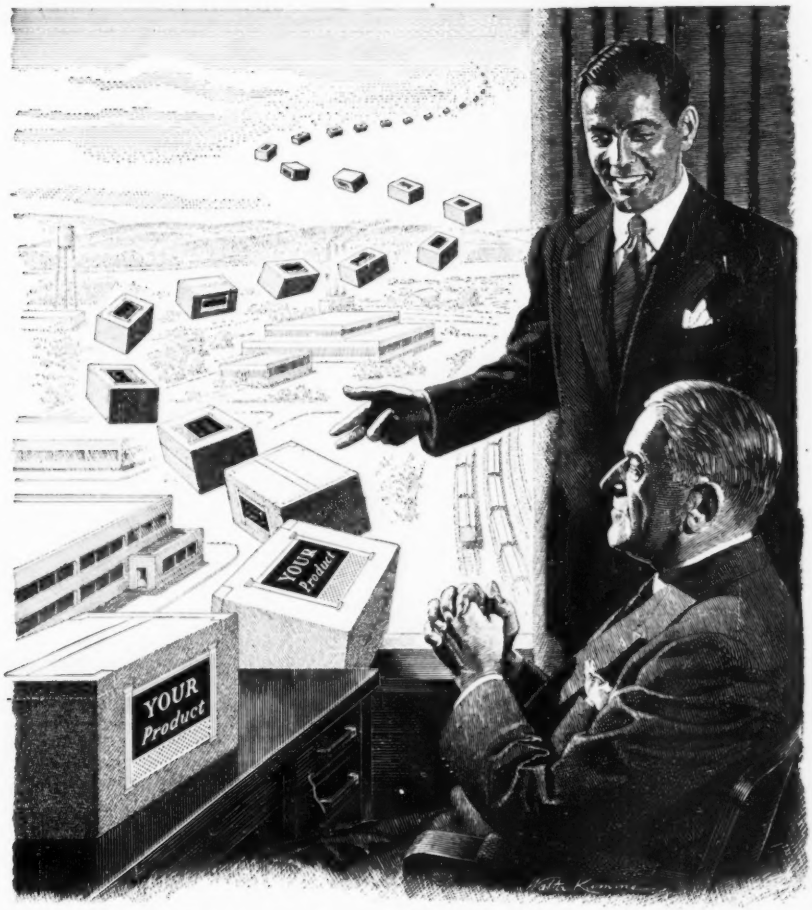
BUSINESS ESTABLISHED 1840



Gaylord Boxes Give You Extra Sales Messages

Theyre Traveling Billboards

Shipping containers carrying your trademark, sales message or slogan provide extra sales contacts. And they provide unusual opportunity for seasonal merchandising or special promotion deals.

Because good first impressions are good business it pays to ship your products in distinctive Gaylord Boxes.

For helpful information on "advertising on the move" get in touch with your nearest Gaylord Sales and Service office.

It's the unseen quality that gives you the extra margin of safety in

Gaylord Boxes

GAYLORD CONTAINER CORPORATION

General Offices: **SAINT LOUIS**

CORRUGATED AND SOLID FIBRE BOXES • FOLDING CARTONS • KRAFT BAGS AND SACKS • KRAFT PAPER AND SPECIALTIES

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Freedom to Sell it Want to as

Eight decades ago 70% of all gainful workers in the U. S. A. toiled in agriculture. Today farms and factories, put together, account for less than 40%.

Where do the rest serve? Chiefly in distribution, which includes the physical movement of products to buyers, and all forms of selling, advertising and sales promotion at the manufacturing, wholesale and retail levels, as well as the widely varied services related to the maintenance and use of American products.

With over 60% of our total labor force falling outside of farm and factory employment, obviously salesmen on the front line of selling contribute greatly to the productivity, prosperity and the world's highest standard of living enjoyed by the U. S. A.

Without sales a business fails and jobs vanish. No matter how good a product may be, it must be sold in competition with other goods. A salesman sometimes finds his products not truly competitive. He then exercises tremendous pressures on his employer for better products, lower prices, or both. Thus, competitive selling greatly influences the progress of American prosperity.

Countries where selling is inefficient, restricted or eliminated generate far less wealth, happiness and security.

Competition, especially competitive selling, is a great American Freedom. Let us preserve it to assure Progress For All Our People.

• • •

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THE COMPETITIVE SYSTEM DELIVERS THE MOST TO THE GREATEST NUMBER OF PEOPLE

your pulleys will drive your machines only as well as your belts drive your pulleys

28-inch 3-ply Heart Oak leather belt with fixed idler, in woolen mill.

if you want more production

get GRATON AND KNIGHT leather belting for more production power

Get a Graton & Knight "Live Traction" Leather Belt — because it is engineered to transmit maximum uniform horsepower at correct speeds and sustained R.P.M. — with ample reserve for load peaks, and "fluid drive action" to absorb starting torque and load shocks.

For tough conditions, cross, shifter and idler drives, **HEART OAK** top grade center stock oak tannage. For short center, small pulley, cone pulley and serpentine *precision* drives, **RESEARCH®** premium quality. For ambient conditions (steam, oil, water, acid and alkali fumes) **SPARTAN®** combination tannage . . . Whatever your conditions, you'll get more production-power with Graton & Knight *Engineered* Leather Belting.

and keep your belts pulling for you

Stop belt slippage — prolong belt life with GRAKO® CLEAR Belt Dressing, result of 100 years experience in leather tanning and belt manufacture. Preserves and lubricates the fibres. Pint, quart and gallon cans — 5-gallon and 50-gallon drums. Send for circular.

New Belting Catalog and Manual shows how to get more production-power with leather belting. Our representative will deliver your (free) copy upon request. GRATON & KNIGHT COMPANY, Worcester 4, Massachusetts.

second century G and K **engineered leather belting**

for more production-power

GRATON AND KNIGHT Estab. 1851

No Simple Task

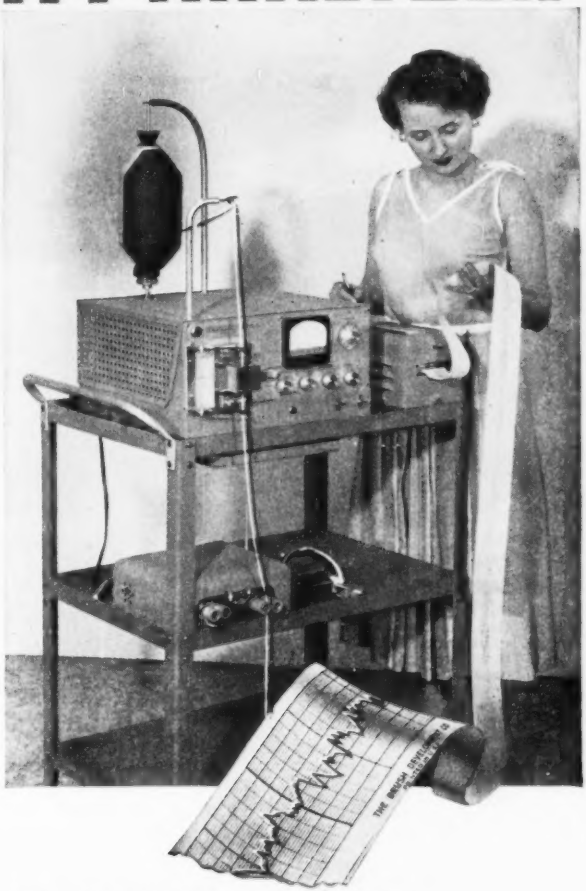
THE SUCCESSFUL functioning of any machinery maintenance system, wherever it may be applied, depends on *how* the job of lubrication is done. Oiling and greasing must not be considered a simple task, for facts prove that the effects can be of major proportion. Analyzing the lubricant needs of the many types of machinery regarding loads, speed and atmospheric conditions, is a necessary part of an established maintenance program. Acceptance of products should be based on rigid performance tests. It has been the practice of Standard Oil to keep abreast with new developments and the needs of the textile industry, and develop from specially selected crudes, lubricants which are carefully distilled and processed to resist oxidation, gumming and wear to the highest degree. For assurance of efficient lubrication, consult one of our representatives. Remember—the combined facilities for research, testing and engineering behind the line of industrial lubricants he offers, are unequalled.

Standard Oil Company
(KENTUCKY)

STANDARD OIL
LUBRICANTS

GROWING DEMAND FOR UNIFORMITY ANALYZER

brings new Brush "peak performance" service policy to Southeast!



• More and more mills are discovering the important benefits of the Uniformity Analyzer. To assure the peak performance and widest use of this instrument, The Brush Development Company and its Southeastern representatives W. A. Brown & Associates announce a new service policy for the states served by Brown.

This comprehensive policy provides a staff of textile-trained application engineers and service experts. These men will inspect Uniformity Analyzers periodically to make sure that these sensitive instruments are giving most accurate results. They will also assist users in interpreting and applying data to the mill's problems. In case of emergency, they will provide 24-hour service.

The new expanded policy applies to all new orders for Uniformity Analyzers in Southeastern states. It also will be available in the near future for existing installations in that area. In other regions, Brush technical assistance and service will be available as usual for all users of Uniformity Analyzers.

For full information, write The Brush Development Company, Dept. T-37, 3405 Perkins Avenue, Cleveland 14, Ohio.

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Put it in writing with a Brush Recording Analyzer

THE *Brush* DEVELOPMENT COMPANY

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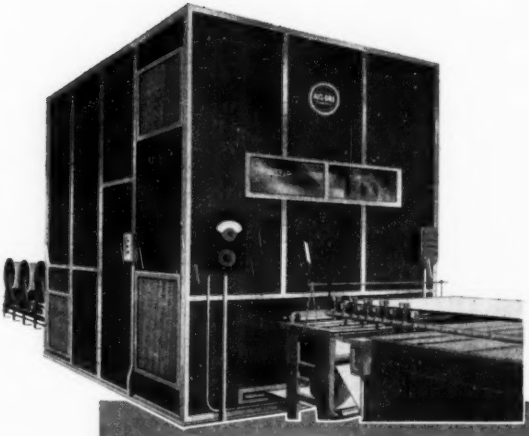
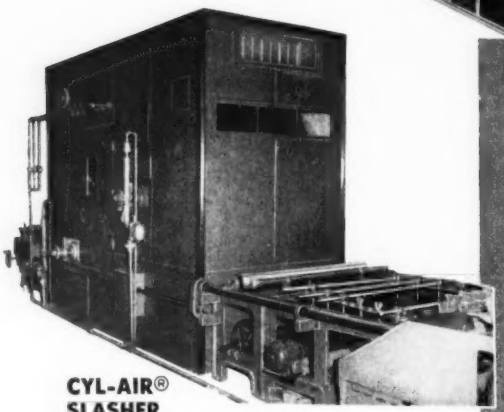
Magnetic Recording Equipment
Acoustic Devices
Ultrasonics
Industrial & Research Instruments



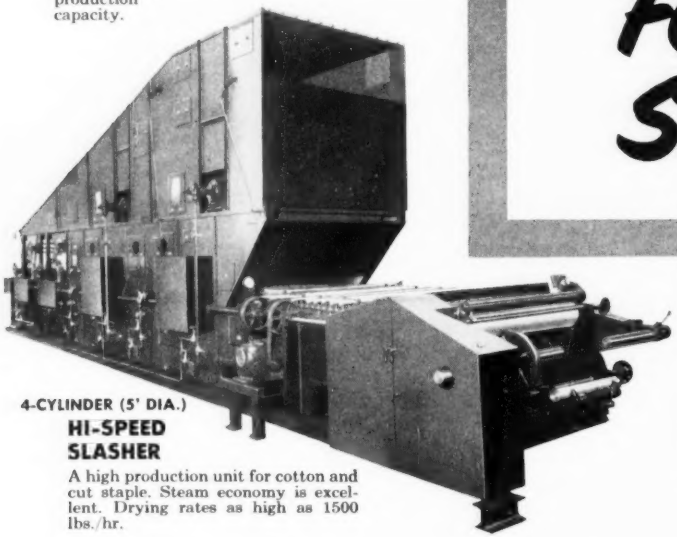
AIR-DRI SLASHER
® (Patented)
A high-capacity, hot-air type that is satisfactory for cotton, wool and spun synthetics. Drying rates as high as 1500 lbs./hr.



CYL-AIR® SLASHER
(Pat. Pending) A new type of dryer that combines benefits of hot air and cylinder methods of drying. It is a highly versatile unit with big production capacity.

For Consistent Quality
Warps at Higher Speeds
Lower Operating Costs . . .

TRY THESE FOR SIZE

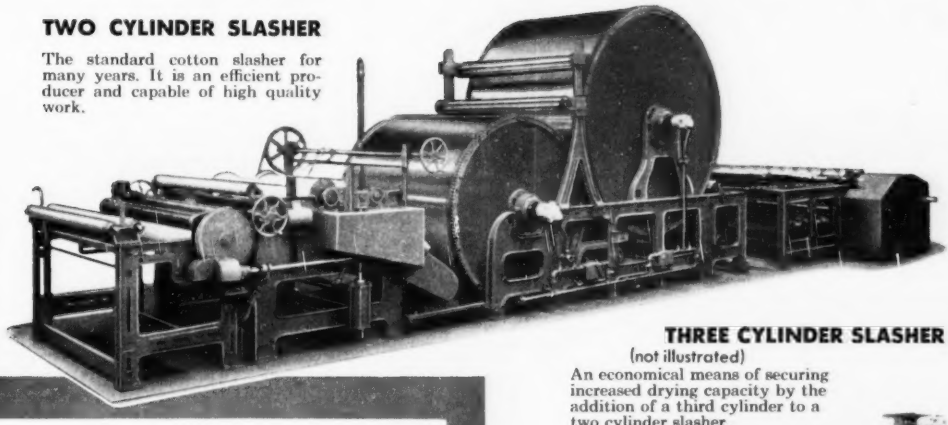


4-CYLINDER (5' DIA.)
HI-SPEED SLASHER
A high production unit for cotton and cut staple. Steam economy is excellent. Drying rates as high as 1500 lbs./hr.

AT THE GREENVILLE TEXTILE SHOW
Exhibit No. 516

TWO CYLINDER SLASHER

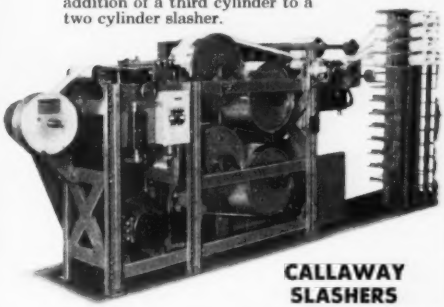
The standard cotton slasher for many years. It is an efficient producer and capable of high quality work.



THREE CYLINDER SLASHER

(not illustrated)

An economical means of securing increased drying capacity by the addition of a third cylinder to a two cylinder slasher.

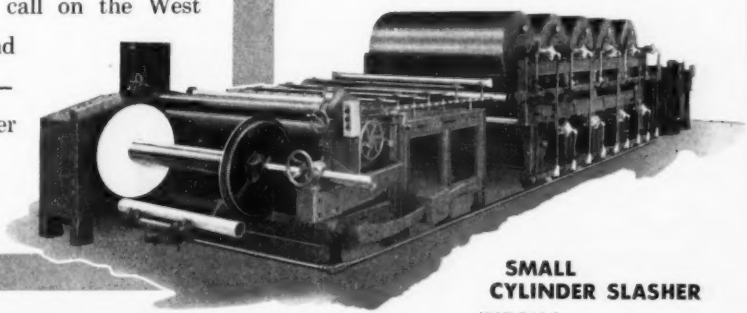


CALLAWAY SLASHERS

Model 50 **Model 51** (illustrated)

Small, narrow-width machines capable of making full width warps for samples, testing, etc., using small amounts of yarn.

There's a WPF&M slasher for virtually every slasher room requirement . . . sample slashing or full production . . . the lightest gauze or the heaviest sheeting . . . natural fibers or synthetics. Whether you require a complete slasher installation from size preparation to the finished warp or modernization of your present equipment, call on the West Point Foundry and Machine Company—specialist in slasher room machinery.



SMALL CYLINDER SLASHER

(30" DIA.)

A versatile machine suitable for cut staple and filament yarns. Can also be used for cotton.

WEST POINT FOUNDRY & MACHINE COMPANY

WEST POINT, GEORGIA

® Registered Trade-Mark

with BENJAMIN'S complete line there is no trouble *at all* getting

Task Matched Lighting Installations

In the 400-page Benjamin Catalog, you'll find just the lighting equipment you need to provide lighting that is matched to the task.

No need wasting time trying to locate a source for this or that special unit . . . or figuring out an acceptable substitute. If the unit is needed in industrial and utilitarian lighting . . . you'll be sure to find it in the Benjamin Line!

You'll be sure to find that, not only is the unit you select correct in lighting design, but equally important, it is designed for extra long life operation under the special operating conditions for which it is intended. Whether it be for ordinary industrial use, installation in corrosive, dusty or explosive atmospheres, for indoor lighting or outdoor . . . the Benjamin Unit designed for the task can be depended upon to meet highest expectations for finest performance.—Benjamin Electric Mfg. Co., Dept. TI, DesPlaines, Ill.

"MAGNA-FLO" SYSTEMS

Provide Over 300 Combinations for Matched to the Task Lighting.

Like all Benjamin Lighting Systems, the "Magna-Flo" line for use with the three T12 Slimline Lamps is complete! It is so complete because, basically, just three channel sizes and four types of reflectors form the backbone of almost unlimited systems to match any industrial lighting task.

B-5930R

"VAPOLETS"

For locations with atmospheres containing moisture, non-hazardous dusts or vapors.

Available in three types of reflectors—Dome, Shallow Dome and Symmetrical Angle. These reflectors thread on to the vapolet housing by cast-iron ring. Choice of glass globes: plain, opal, heat-resisting, ruby, etc.

"VAPOR-TITE" FLUORESCENT

For lighting locations where excessive amounts of non-combustible vapor or dust are present.

Approved as vapor tight by U. L., a one-piece porcelain enameled unit with hinged glass cover and easily accessible control equipment. Available in standard and angle mountings; also Plexiglass covers.

EXPLOSION-PROOF

For locations listed by U. L. as Class I, Group C and D hazardous locations.

For lighting locations involving explosive atmospheres or explosive inflammable dusts, there is a complete line of Benjamin Explosion-Proof Units, available in a choice of reflectors, Dome, Flat Cone, Bowl, Symmetrical Angle; also choice of mountings.

"ELLIPTO-LITE"

Most popular type floodlight ever designed for outdoor and protective floodlighting.

For protective floodlighting of factory yards and grounds and for lighting outdoor work areas. A porcelain enamel floodlight with auxiliary inner aluminum reflector; available with a removable hood construction, lowering attachment, choice of mountings.

"STEELITES"

For locations where keeping lighting levels up and upkeep down is a real problem.

An armor-clad unit consisting of specially designed alzak aluminum reflector enclosed in a protective steel housing and a hinged, tempered glass cover which seals against dust, moisture and corrosive fumes.

"TURNLOX"

Detachable Hood Construction available with 7 types of Incandescent Reflector Units to speed maintenance and cut costs.

Permits removal of lamp and reflector as one unit for cleaning on floor or at bench.

For complete details on this equipment or any of the more than 2,000 Benjamin Lighting Units CONSULT YOUR BENJAMIN CATALOG . . . the encyclopedia of industrial Lighting.

Only B. F. Goodrich makes the grommet belts that cut costs 20 to 50%!

Save 3 ways! Investigate today! Write or mail coupon

You save belt costs because belts last longer, save production costs because machines keep running with fewer interruptions, save maintenance costs because they need less attention.

Patented grommet belts by B. F. Goodrich represent the only basic change since invention of the V belt. Belts last 20 to 50 per cent longer, depending on service. (The more severe the service, the greater the increase over ordinary belts.) Grommet belts have more rubber; they're more flexible, give better grip, less slip.

What is a grommet?

A grommet is like a giant cable except that it's *endless*—a cord loop built up by winding heavy cord on itself. There is no overlapping cord *section* as in all ordinary belts. Most belt failures occur in these sections where cords overlap!

All cords put to work

Each of the two grommets and every part of a grommet carry their share of the load. In ordinary belts under high tension the center cords "dish" because tension is greater near the driving faces. Dished cords are doing less work, not pulling their share. Grommet belts have no center cords, there is no dishing—therefore much more strength in proportion to cord volume—and less stretch. Grommet belts stretch, on an average, only about one-third as much as ordinary belts.

Better grip, less slip

Grommet belts have more rubber in relation to belt size. Without any stiff overlap, they're more flexible, grip pulleys better. Size for size, grommet belts give ⅓ more gripping power, pull heavier loads with a higher safety factor. Because there is less slip, there is also less surface wear.

Send for proof

Send the coupon for a set of reports telling users' experiences and showing actual installations where grommet belts outlasted all others. Some typical cases:

". . . within a few days ordinary belts had stretched . . . After six months of 24-hour-a-day service BFG grommet belts haven't stretched at all . . ."

"Ordinary belts lasted only 5 or 6 weeks . . . B. F. Goodrich grommet belts are in their sixth month of service . . ."

"Previous belts suffered from shock loads, wore out fast . . . BFG grommet belts have been in service 2 years with no shut-downs . . ."

There are hundreds of cases like these.

They cost no more

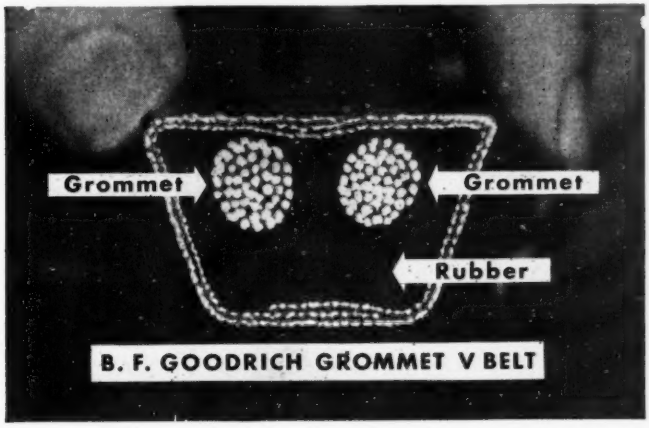
BFG grommet belts cost not one cent more than others. The savings they make for you are clear profit. They are made in C, D and E sections. They are patented by B. F. Goodrich. No other V belt is a grommet belt (U. S. Patent No. 2,233,294).

Write, send the coupon or see your B. F. Goodrich distributor. (He will show you his "X-ray" belt that shows the grommet construction clearly.)

Grommet V-Belts BY

B.F.Goodrich

FIRST IN RUBBER



The B. F. Goodrich Company
Dept. TI-9
Akron, Ohio

☐ Send set of reports telling users' experiences and showing actual installations proving that B. F. Goodrich grommet belts outlast all others.

☐ Have distributor show me the "X-ray" belt that shows how B. F. Goodrich grommet belts are made.

Name_____

Firm Name_____

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Street Address_____

City_____

State_____

Teamwork in the grease-pit can mean the difference between winning or losing the race. Through teamwork, success is more certain — in sport — in industry.

What can we do to help insure the future of your business? That's what Butterworth engineers have been asking for 131 years — the question has special meaning today.

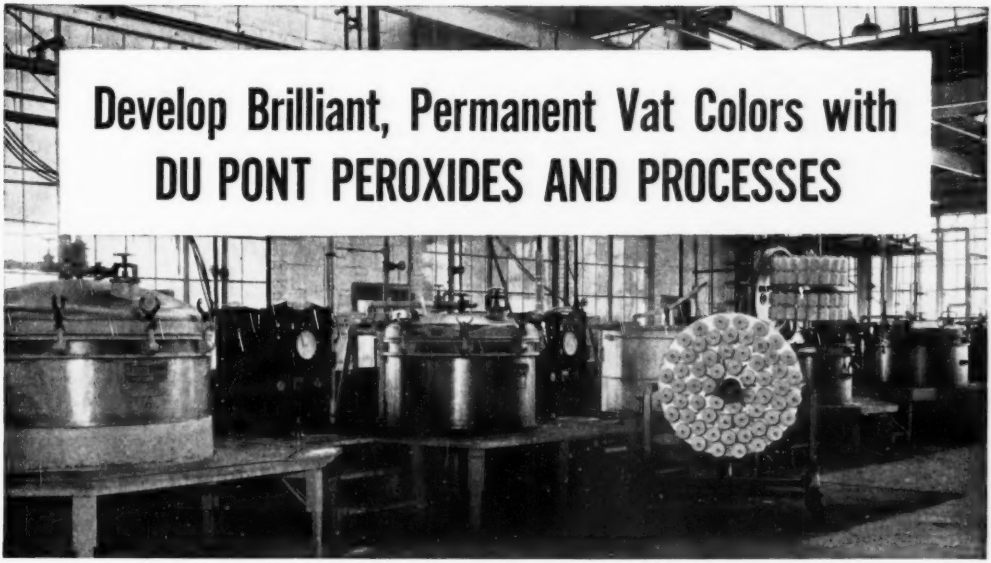
Thinking of new machines? We will do the utmost to meet your requirements, within the limits of our metal allotments. Making long range plans? Our engineers are at your service. Even now they are teamed with many of America's leading mills, thinking of the years ahead and planning with them to maintain their competitive position.

Butterworth service is offered too, to help your wet finishing department get the most out of what you now have — to keep equipment at peak efficiency. It may be only a spare part you need — but if you need it in a hurry, you'll get it in a hurry if it is humanly possible.

A letter, a wire or a phone call will put a Butterworth engineer on your team.

H. W. BUTTERWORTH & SONS COMPANY
Bethayres, Pennsylvania
1211 Johnston Bldg., Charlotte, N.C. • 187 Westminster St., Providence, R.I.
Machines for Bleaching, Boiling-Out, Mercerizing, Dyeing, Finishing and Embossing : : Pot Spinning Machines for Synthetic Fibers
Calender Rolls : : Tenter Chains

BUTTERWORTH



Develop Brilliant, Permanent Vat Colors with DU PONT PEROXIDES AND PROCESSES

VAT OXIDATION with "Albone" 35 hydrogen peroxide offers dyers an economical means of fixing reduced vat colors. Acid peroxide solutions made with "Albone" 35 quickly oxidize most vat dyes . . . produce brilliant shades of exceptional depth and color fastness. Brightness is frequently superior to results obtained with chrome acetic acid.

Fabrics oxidized with "Albone" 35 can be readily finished. No objectionable metallic residue from the oxidation agent remains on the cloth after treatment—permitting greater cloth absorbency. In Sanforizing, this means greater speed and efficiency . . . in sewing heavy fabrics, freedom from overheated needles.

Equally suitable for continuous dyeing, jig dyeing or circulating machines, "Albone" 35 baths conserve time and material. There is little bleed-off in the oxidation bath—therefore, no necessity for changing the bath between runs of different shades. Bath maintenance is easy, whatever the fiber—cotton, viscose rayon, silk or wool; whatever the form—raw stock, yarn or piece goods.

Let Du Pont Help You With Your Wet Processing Problems

The excellent results obtained with Du Pont peroxides and processes for vat oxidation are typical. Whatever your wet processing problem—*continuous cotton or wool bleaching, batch cotton or wool bleaching or hosiery bleaching*—Du Pont technical and engineering men stand ready to help you. They'll be glad to show you how to get the most from your processing equipment and will explain the advantages of bleaching with "Albone" hydrogen peroxide. For more information and technical literature, send in the coupon below.

DU PONT
PEROXIDES
FOR TEXTILE BLEACHING

Available in drums and tank cars
"Albone" 35 . . . Hydrogen Peroxide 35%
"Albone" 50 . . . Hydrogen Peroxide 50%

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150th Anniversary
BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
Electrochemicals Department
Wilmington 98, Delaware

Please send me more information on Du Pont peroxides and processes. I am interested in the following types of textile processing:

- ☐ Vat Oxidation
- ☐ Batch Bleaching of Cotton
- ☐ Continuous Wool Bleaching
- ☐ Continuous Cotton Bleaching
- ☐ Batch Bleaching of Woolens and Worsteds
- ☐ Hosiery Bleaching

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*Firm*_____
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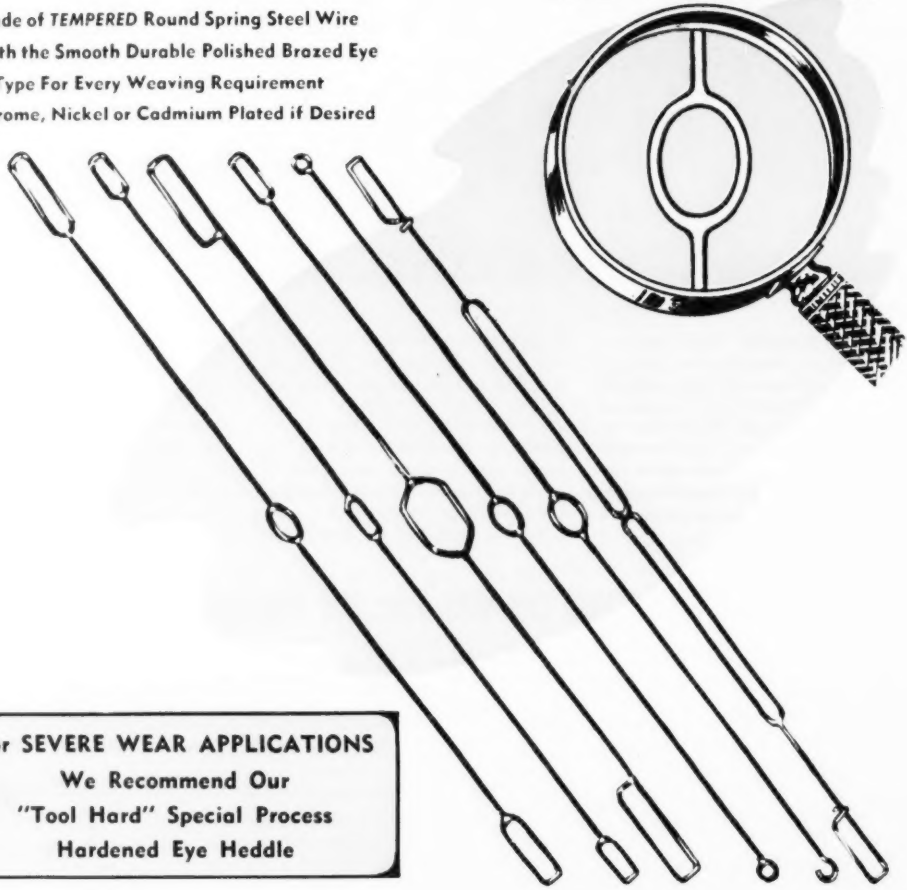
Pickard's BRAZED EYE Heddles

For 60 Years

The FAVORITE of WEAVERS

The World Over

Made of *TEMPERED* Round Spring Steel Wire
With the Smooth Durable Polished Brazed Eye
A Type For Every Weaving Requirement
Chrome, Nickel or Cadmium Plated if Desired



For SEVERE WEAR APPLICATIONS
We Recommend Our
"Tool Hard" Special Process
Hardened Eye Heddle

They Cost Much Less in the Long Run – They Last Much Longer

Let us help you with your weaving problems.

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6157 KEYSTONE ST., PHILADELPHIA 24, PA. — Phone: CUMBERLAND 8-8615

Manufacturers of Specialized Loom Accessories

Deep rich colors

for blends of

ORLON and wool

To get rich, *washable* colors like these for blends of "Orlon" and wool, Du Pont's technical service experts helped make the dyeings right at the mill.

This is just one example of how Du Pont works with manufacturers to set up successful dyeing procedures for blends of wool and man-made fibers.

When you have a dyeing problem with any blend, call on Du Pont. Our technical service representatives will study your problem with you . . . and work with you to solve it. They can draw on Du Pont's unique experience both as a producer of dyes and creator of man-made fibers.

Research at Du Pont is directed toward constantly improving dyes and dyeing methods. For the latest developments, keep in touch with Du Pont. E. I. du Pont de Nemours & Co. (Inc.), Dyes and Chemicals Division, Wilmington 98, Delaware.

ORLON is Du Pont's trade-mark for its acrylic fiber.

Du Pont Dyes

DU PONT

REG. U.S. PAT. OFF.

150th Anniversary

Better Things for Better Living . . . *through Chemistry*

MANAGER

SUPERINTENDENT

Whether You Are...

PURCHASING AGENT

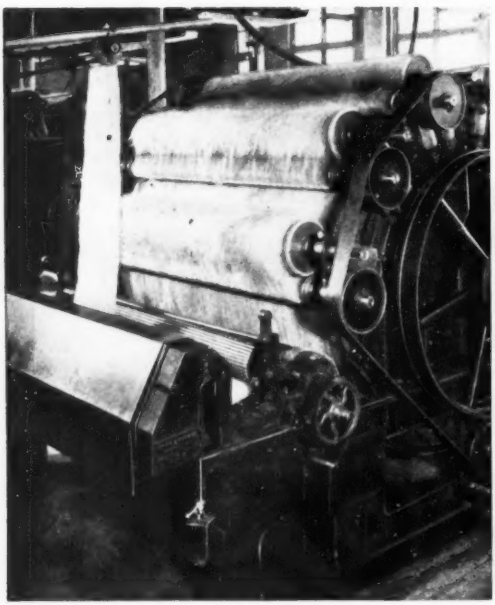
OVERSEER

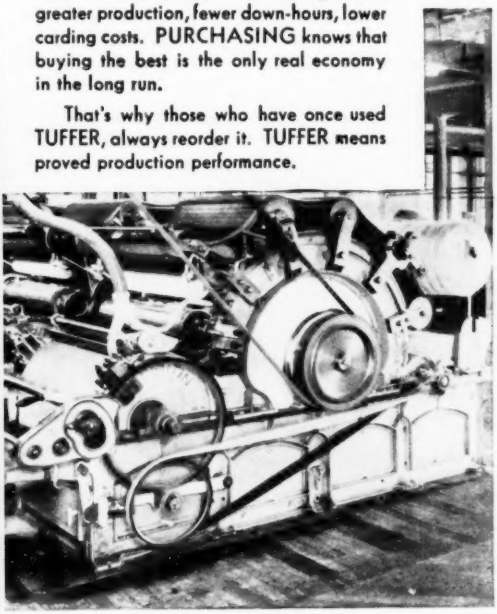
The Quality of Your Card Clothing is vitally important

Visit our booth at Sections 245-46, Southern Textile Exposition, Greenville, South Carolina, October 6-11

MANAGEMENT and PRODUCTION know that top quality card clothing means greater production, fewer down-hours, lower carding costs. PURCHASING knows that buying the best is the only real economy in the long run.

That's why those who have once used TUFFER, always reorder it. TUFFER means proved production performance.





HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Georgia and Gastonia, N. C. **Branch:** Philadelphia, Pa.

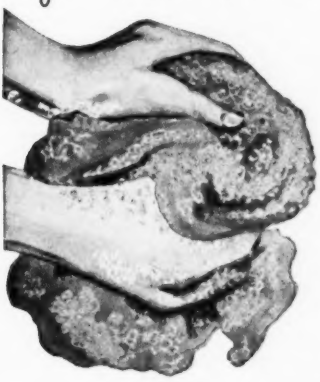
Direct Representation in Canada

A-2

. . . IT PAYS TO SPECIFY TUFFER CARD CLOTHING

*KERANOL nk®

gives woolens, cottons and rayons a very desireable, soft full hand...



***Durable to Washing and Dry Cleaning**

Your woolen, cotton and rayon fabrics finished with KERANOL N K will have a truly mellow, glove-like hand, durable to washing and dry cleaning. KERANOL N K is unaffected by variable pH values, so may be used with greatest efficiency in neutral, alkaline or acid baths.

Mail the coupon for further information.

Additional – and highly valuable – use of KERANOL N K: as a plasticizer and softener in conjunction with all types of resin finishes.

EXCELLENT RESISTANCE TO YELLOWING!

Arkansas Co. INC.

MANUFACTURERS OF INDUSTRIAL CHEMICALS FOR OVER 45 YEARS
NEWARK, NEW JERSEY

Arkansas Co., Inc.
P. O. Box 210
Newark, N. J.

Gentlemen:

Please send, without obligation:

- ☐ full details on KERANOL N K
- ☐ sample and application procedure
- ☐ please have representative call

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ADDRESS_____

CITY_____ STATE_____

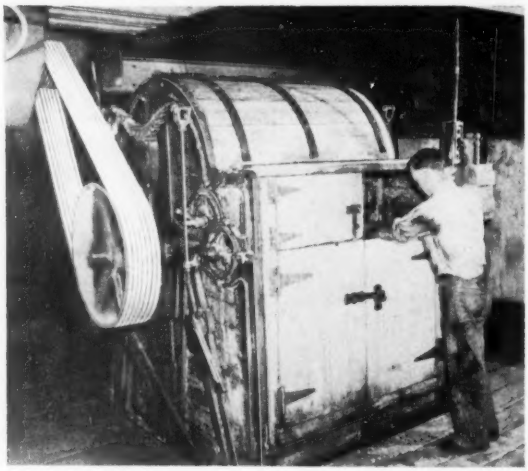
3-9-2

How concave sides cut V-Belt costs

Important to anyone who wants to cut V-Belt replacement costs is the simple, interesting reason WHY Gates Vulco Ropes are built with *Concave Sides* (U. S. Patent 1813698). See Figure 1.

When a Gates belt is bent around a sheave these Concave Sides fill out to full, even contact with the sides of the sheave groove. (Figure 1A). This gives you sure pulling power. And, naturally, because wear is distributed evenly, the Concave Sides actually give you longer wear—longer belt life. That cuts V-Belt replacement costs.

On the other hand, when a straight sided V-Belt (Figure 2) is bent, the sides bulge out, preventing the belt from fitting evenly in the sheave groove. This causes *extra wear* at the points shown by arrows. (Figure 2A).



Make this simple test yourself...

Hold a straight sided V-Belt as it would be bent around a sheave. Take the sides of the belt between your finger and thumb. You can *feel* the bulges in the sides—the bulges that prevent an even fit in the sheave groove and cause extra wear.

Now do the same thing with a Gates Vulco Rope. You can feel the sides fill out. You can see why they press firmly and evenly against the sides of the sheave groove—giving you longer belt life—lower belt costs.

When you buy V-Belts be sure to get Gates Vulco Ropes—the V-Belts with the Concave Sides.

Gates Engineering Offices and Jobber Stocks are located in all industrial centers of the United States and in 71 foreign countries.

V-BELTS PERMIT SUDDEN STOPS

When flat belt driven fulling mills at the Glen Woolen Mills, Norwich, Connecticut, had to be stopped suddenly, inertia caused overrun which often destroyed several yards of cloth.

Individual plug-stop motors connected by Gates Vulco Ropes now give smooth, almost instantaneous stops and practically no overrun.

CS-526-D

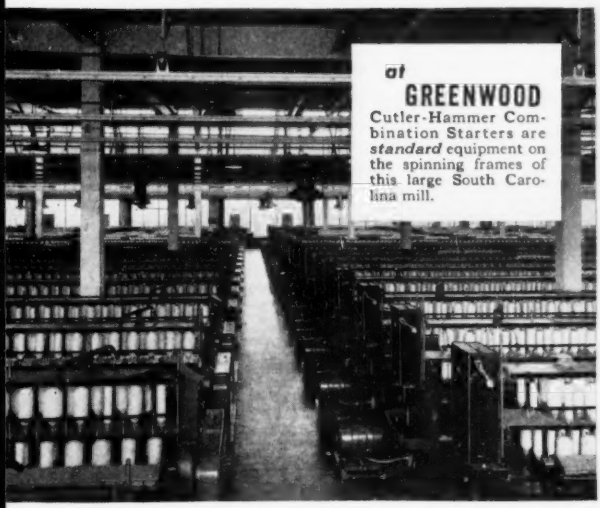
Gates® VULCO ROPE DRIVES

THE GATES RUBBER COMPANY • DENVER, U.S.A.

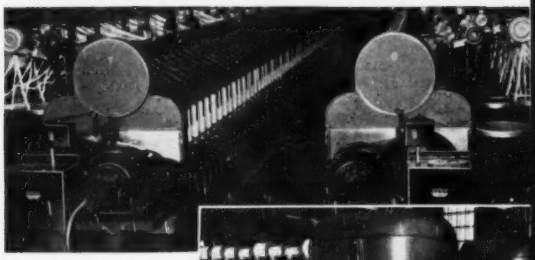
V-Belts — Hose Molded Rubber Goods for industry World's Largest Maker of V-Belts

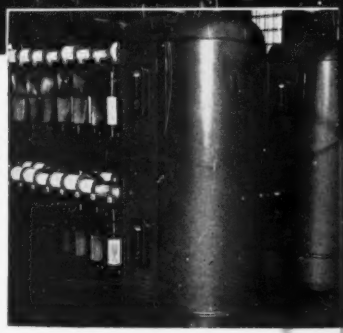
CUTLER-HAMMER

MOTOR CONTROL FOR THE TEXTILE INDUSTRY

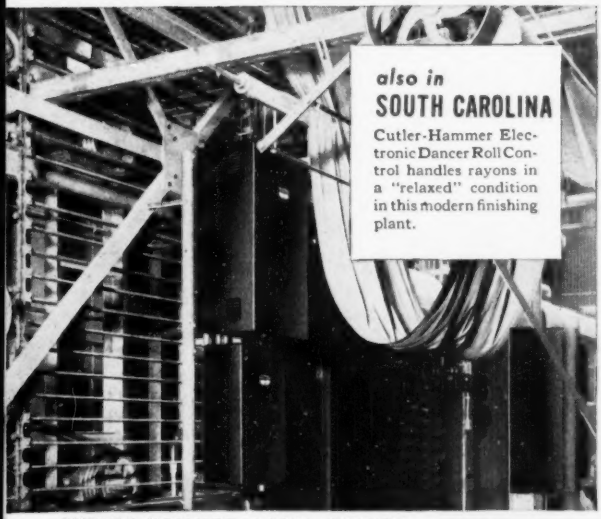


at
GREENWOOD
Cutler-Hammer Combination Starters are ***standard*** equipment on the spinning frames of this large South Carolina mill.





for
WAUMBEC
at Manchester, N. H. Cutler-Hammer Pushbutton Manual Starters on uptwisters and Primary Resistor Type Magnetic Starters on roving frames. Cutler-Hammer control also used on looms and spinning frames in this great mill.



also in
SOUTH CAROLINA
Cutler-Hammer Electronic Dancer Roll Control handles rayons in a "relaxed" condition in this modern finishing plant.

Too important to be left to chance

Men who *know* textile production costs are careful buyers of motor control equipment. They know a single work stoppage caused by faulty control can easily cost more than the entire purchase price of the control. In consequence, they do two things. First, they compare *all* makes of motor control to determine which is most dependable. Second, they specify this make by *name* on every purchase order.

Cutler-Hammer Motor Control is the natural choice of men who know dependability in motor control is too important to be left to chance. They quickly find Cutler-Hammer dependability is not a mere competitive claim but a *fact* that can stand out clearly in a mill's production records to reflect favorably on their own ability and good judgment. They also find that Cutler-Hammer dependability is not an occasional happenstance... that it is the earned advantage of the longest and most intensive specialization in motor control engineering... that it can safeguard *every* control need from the simplest starter to the most complex electronic equipment.

You too will find it pays to insist on Cutler-Hammer Motor Control and refuse all substitutes. An adequate network of Authorized Cutler-Hammer Distributors throughout the textile manufacturing areas insures prompt attention and supply. CUTLER-HAMMER, Inc., 1456 St. Paul Avenue, Milwaukee 1, Wisconsin.

CUTLER-HAMMER LOOM SWITCH

for fewer shutdowns, greater production, easier maintenance

Pushbutton operation – an achievement for this type of starter. Stop button can be padlocked.

Stronger, smaller, drawn steel case. Unique welded-steel mounting pedestal available to create a *complete* assembly with unparalleled resistance to mechanical shock.

Lint-proof enclosure—close fitting cover (even around pushbutton well) limits entrance of lint and dust.

Service proven, positive make, quick break operating mechanism built on *steel* framework.

"Out in the open" contacts for quicker inspection and easy renewal *on the job*. Most dependable overload protection – famous Cutler-Hammer eutectic element type—prevents unnecessary shutdowns without sacrifice of *positive* motor protection.

Vibration resistant. Mechanism "floats" in truly effective *live rubber* mounting bushings.

CUTLER-HAMMER
MOTOR CONTROL
C-H

SEE CUTLER-HAMMER EXHIBIT AT SOUTHERN TEXTILE EXPOSITION, BOOTH 460, ANNEX 1

For Dyeing and Printing

synthetics

. . . INTERCHEMICAL, Your Most Logical Source for the Finest Textile Colors

NYLON

Aridye Pigment Colors make possible, for the first time, fast-color printing of nylon sheers. Outstanding for white on whites is the new Aridye White NY. Other printing and dyeing problems are being solved with Interchem Acetate Dyes.

ORLON

By means of a special process using Aridye Pigment Padding Colors it is now possible to dye Orlon for uniforms and a wide variety of other uses.

ACETATE

GLASS

The difficult problem of printing glass drapery fabrics has been solved by use of Aridye Pigment Colors and special Aridye Cleara developed specifically for this purpose.

Your Problem Is Our Problem

Already Interchemical Research and Technical Service have solved many of the problems involved in coloring synthetics for apparel and household uses, as illustrated above. In our constantly growing fund of knowledge and experience we may have the answer you are looking for. We invite your inquiries regarding printing and dyeing synthetics.

Interchemical Corporation

Textile Colors Division

Hawthorne, N.J.
Pawtucket, R.I.
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Aridye PIGMENT COLORS Reg. U.S. Pat. Off.

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RAYON

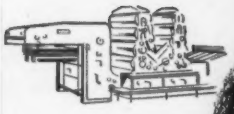
Use of Aridye Pigment Colors has been the answer to innumerable problems in printing and dyeing rayons. Recently introduced for rayon dyeing is our new line of Arilite* Dyes.

*Trademark

DACRON

DYNEL

Aridye Pigment Colors and Interchem Acetate Dyes show promise for dyeing and printing Dynel.



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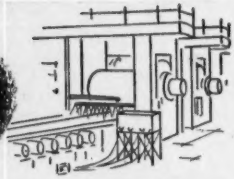
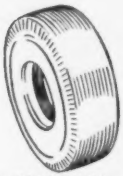


STEEL INDUSTRY



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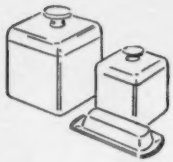

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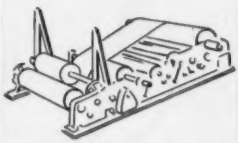

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BOOTH No. 144

Greenville, S. C.—Oct. 6-11, 1952

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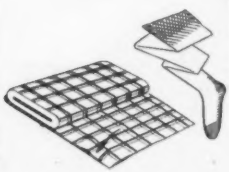

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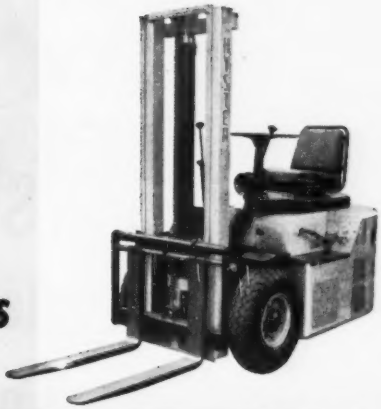
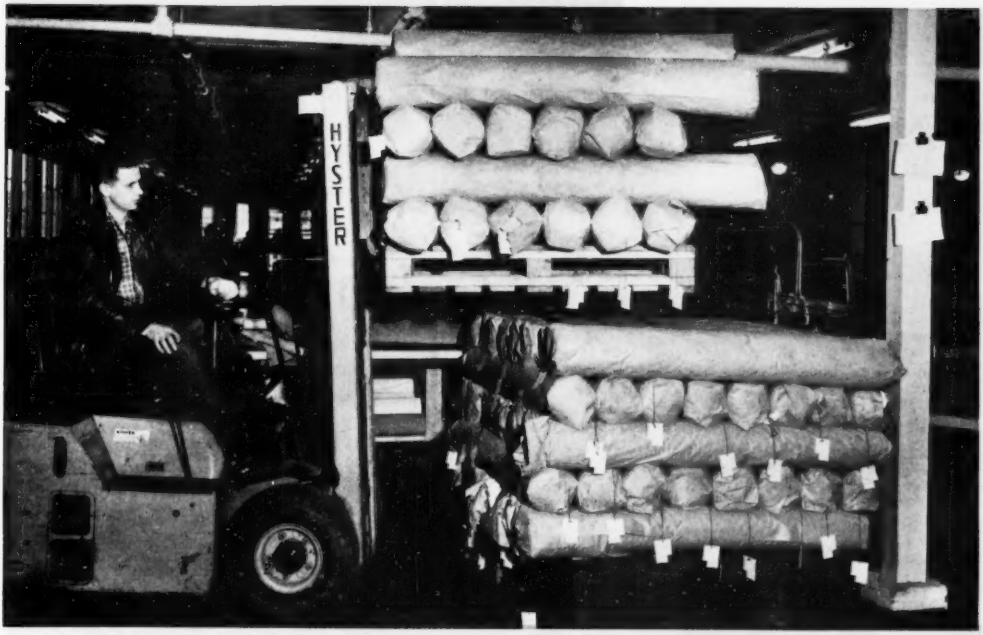
use
HYSTER® 20 *Lift Trucks*





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Subsidiary of Chrysler Corporation

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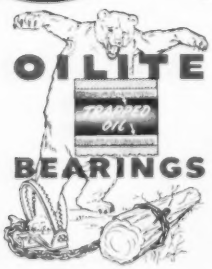

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No. 27 of a series

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DYESTUFF DEPARTMENT, Bound Brook, New Jersey

Calco

Superior Fastness Properties of New Dye Actually Improved by Aftertreatment with Resins

Calcodur* Resin Fast Orange 5G is the newest addition to our fast-selling line of Calcodur Resin Fast Dyes. Not only does the self-shade produce shades of superior fastness properties for

a direct dye, but it actually improves in fastness to light and other properties when aftertreated with resins.

We recommend Calcodur Resin Fast Orange 5G for use by the procedures followed in the mill for direct dyes. Its good solubility, level dyeing and uniform exhaustion properties will give good results alone or in combination on viscose or cotton. In the case of viscose acetate fabric, Calcodur Resin Fast Orange 5G will dye viscose while leaving the acetate essentially white.

Although we do not recommend it as a straight wool dye, Calcodur Resin Fast Orange 5G produces quite a satisfactory union in wool-union dyeing. It also produces a good balanced shade between cotton and viscose when used for dyeing fabrics containing these fibers.

*Trade-mark

Where Concentration Counts

Calconyl* Double Solutions offer printers the outstanding advantages of their higher concentration.

Printing pastes for sharp prints and outlines are easy to prepare with these concentrated solutions. Since only a small amount of Double Solution, as compared to weaker solutions, is required to produce the desired shade, excessive dilution of the print paste is not encountered. Neither is it necessary to make up a special thick paste in order to obtain the final desirable results.

These advantages, coupled with excellent stability, less bulk in storage and other good properties, make Calconyl Double Solutions the advantageous products to use in the print shop.

CALCOMINE* YELLOW BROWN K EXTRA

A splendid example of the improvements in quality which can be made when carefully controlled intermediates are combined with careful workmanship.

Calcomine Yellow Brown K Extra has excellent solubility and leveling properties and provides a most economical base for brown and mode shades. Aftertreatment with copper, chrome, and acetic acid reddens the shade but produces an improvement in the fastness to light and washing.

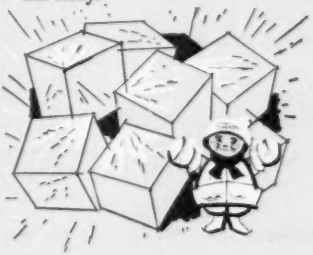
For the Textile Bookshelf

Aniline Black (*Calco Technical Bulletin No.* 821).

A timely review of the important methods for Aniline Blacks, which are enjoying increasing acceptance from cotton and rayon printers. The fastness properties, uses and application methods of the various Aniline Blacks are discussed and fully described.

Application of Dyes to New Synthetic Fibers (*Calco Technical Bulletin No.* 826).

A carefully compiled record of existing data on the new synthetic fibers. Dyeing methods for the coloring of the new synthetic fibers and fastness properties to look for are covered in this study.



Refrigeration of 15,000 tons of equivalent ice tonnage is produced at Calco every day.

Mc BRIDE *Textile Equipment Data*

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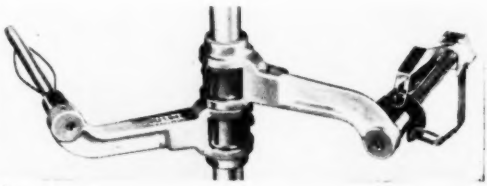
THESE NEW McBRIDE DEVELOPMENTS SAVE YOU TIME AND MONEY

STOP MOTIONS

Sealed Mercury switches — Positive action — two-way signal lights. Hermetically sealed mercury switches give positive action under all conditions, eliminate the dangers of failures due to lint or dust. Two types provide rugged dependability for heavy yarns, extra sensitive fast action for very light yarns such as 15 denier Nylon.

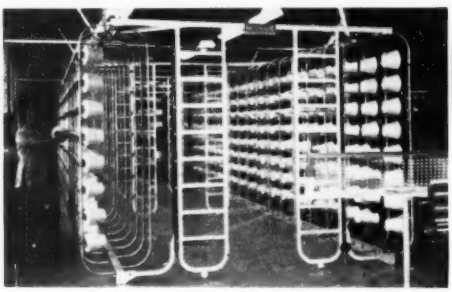
McBRIDE UNIVERSAL CONE HOLDERS BRING YOU THESE BASIC ADVANTAGES

1. Accommodate most types and sizes of packages.
2. Instantly convertible from cones to tubes.
3. No set screws.
4. Will not snag ballooning yarn.
5. Mounted on swinging arms for fast package change.
6. Cone holder revolves to facilitate tying of transfer tails.



INSTANT CHANGE FROM CONES TO TUBES

There are no set screws or other mechanical adjustments of any kind required to make this practically instantaneous conversion. No chance of delay, no need to look for tools. Cone holder snaps into place and locks firmly yet is free to revolve, facilitating the tying of transfer pigtails. This entire operation can be performed by the creeler while he is changing packages. **AVAILABLE AS A SEPARATE UNIT.**



EXTREME FLEXIBILITY WITH McBRIDE MAGAZINE CREELS

All the advantages offered by McBride Universal Cone holders and electromagnetic stop motions, plus extreme flexibility, are yours with McBride SRM Magazine Creels. McBride Magazine Creels can be set up with the yarn coming down either inside or outside. Tandem assembly is also possible where floor space is limited.

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BEAMS: Section — Loom — Narrow Fabric — Tricot — designed and built to your specifications.

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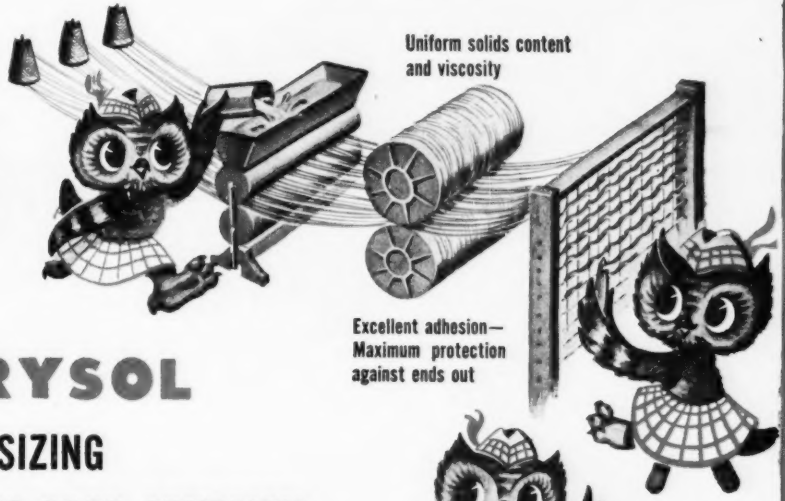
CREELS *for every purpose,* **WARP BEAMS • FLANGES • ROLLS** **Mc BRIDE**



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ASSURES GOOD ADHESION—
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ACRYSOL sizes give essential protection to nylon weaving or tricot knitting yarns at lowest cost. Be wise and thrifty—write for full details of these polyacrylic acid sizes.

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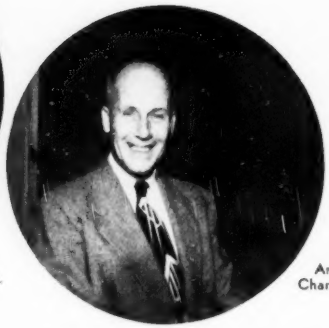

Art Sommer
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Fred Slaughter
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We believe that the equipment made by the firms we represent is the best that can be obtained in each line. It has always been our aim to service this equipment so that our mill customers will get the greatest benefit from it.

Call on us for information on any of the efficient and reliable equipment listed.

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Mount Hope Machinery Co.

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FREE WHEELING EXPANDER

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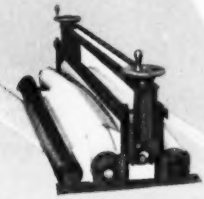
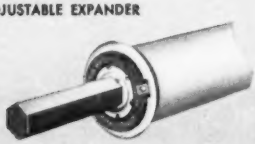


3 BAR ADJUSTABLE EXPANDER



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From 0 to maximum, this remarkably efficient new Ball Bearing Free Wheeling Expander adjusts quickly and easily to all your requirements for all types of fabrics on all types of machines.

Retains all efficiency features of our regular Free Wheeling Expanders. Ideal for experimental use or as a spare — does work of any number of fixed bow devices.

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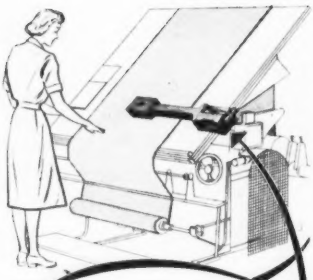


Something you owe your customers

Accurate textile measurement is what your customers expect. Give it to them! Show them indisputable evidence with a "TRUMETER" printed ticket or mill tag, delivered at any point during the run. This way you not only eliminate short-measure complaints and illegible hand-written records—you cut out waste *completely*. And that means EXTRA PROFITS!

"Trumeter" Standard Measuring Machine

"TRUMETER" can be fixed to most Inspection, Plaiting, Winding, Rolling and Doubling machines. Models are available for all types and widths of material—fine nylon, woollens, worsteds—even carpets, plastics, etc. It adds one way—subtracts the other and delivers its printed ticket with one depression of a lever. "TRUMETER" is always accurate—always reliable. There's one for *your* need. Write now for particulars of complete line.

TRUMETER

PRODUCTS

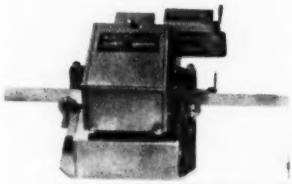
A complete line of quick-reset Counters and Measuring machines for Textile Mills, and expert service on their application. Write for catalogues and quotations.

"WOOLCO" TRUMETER MEASURING MACHINE

For Woolens and Worsteds, can be easily installed on all types of existing machines where accurate measurement is essential.

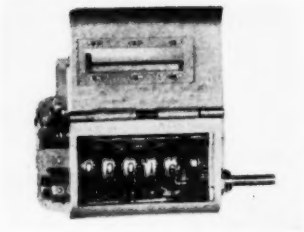
CARPET MEASURING MACHINE

Measures carpeting, thick felt and furnishing fabrics easily and accurately by the ingenious roller and brake arrangement of the TRUMETER. Heavy mill tags can be printed on the counting device of the "TRUMETER."



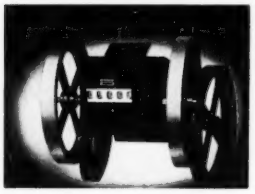
RIBBON AND TAPE MEASURING MACHINE

An accurate and positive method for narrow fabric measuring. Equipped with automatic brake and adjustable nip roller to prevent slippage and overspin. Adjustable guides for different width of materials. Equipped with quick reset counter.



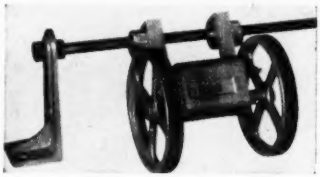
PRE-DETERMINED COUNTER

This revolution or stroke predetermined counter is equipped with figure wheels of a solid brass and metal combination and an ingenious setting and locking device. Drive shaft geared to figure wheels — built-in micro switch — Quick preset lever action.



MEASURING COUNTER SR 3

A reliable counter for Calender, Stenter, inspection and rolling machines. Rubber covered or knurled aluminum wheels up to half-yard circumference or special wheels if required. Quick lever reset.



MEASURING COUNTER SR 7

Similar to SR 3, but with stand, adjustable bracket and tilting hinges with 18" long rod. Famous quick lever reset.

TRUMETER COMPANY

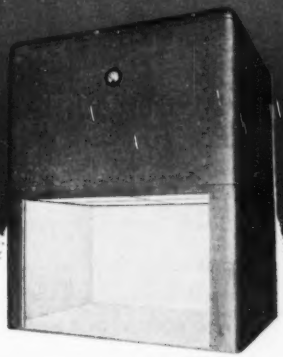
1265 BROADWAY, NEW YORK 1, N. Y.

TRUMETER PRODUCTS are exhibited at the SOUTHERN TEXTILE EXPOSITION in GREENVILLE, S. C., by our REPRESENTATIVES

SLAUGHTER MACHINERY COMPANY, CHARLOTTE, N. C., BOOTH NO. 145-146

MACBETH Equipment

For Textile Color Control



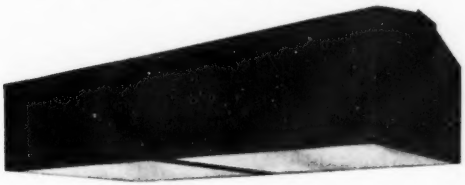
MACBETH DAYLIGHTING

Standard light for critical color matching in mills all over the world. Macbeth Daylight is correct, accurate, reproducible anywhere. Macbeth Skylights are available in many sizes and models, according to the desired uses. Shown at right is Macbeth Super Skylight BX848, for limited area illumination, such as used in dyehouse color matching.

MACBETH pH METERS

Complete line of AC powered Macbeth pH Meters available for dyehouse, bleachery, etc. All Macbeth pH Meters have single operating control feature and are continuously indicating.

MACBETH EXAMOLITE®



. . . and the Macbeth Cotton Examolite,® low cost combination of incandescent and fluorescent light for general textile examination and inspection work not requiring extreme color control accuracy. Ideal for wall-to-wall illumination of inspection and classing rooms.

COTTON COLORIMETER

Macbeth is exclusive distributor in the U. S. and Canada of the Nickerson-Hunter Cotton Colorimeter, an automatic self-standardizing, precision instrument that enables the experienced cotton man to check the color of a sample against the color of any standard grade . . . a "private arbitration referee."

COLOR DENSITOMETER

The Macbeth-Ansco Color Densitometer is a precision instrument for measuring color by numerical standards. With accessories, it is indispensible for checking dye batch solutions, etc.

See us at the Greenville Show — Booths 145-146 with our Southern Representatives: Slaughter Machinery Co., 205 Church Street, Charlotte, N. C.

MACBETH CORPORATION and subsidiaries, Newburgh, N.Y.

Check these features

Kidde-Aveco Tricot Machine turns out Quality Fabrics at High Speed

Where you want fast production of improved quality fabric use the Kidde-Aveco High Speed Tricot Machine.

Brakes for controlling the beams have been replaced by a mechanical continuous let-down. The ratchet take-up has been replaced by a new continuous take-up. A high starting torque motor equipped with quick stop is used to minimize the periods of acceleration and deceleration. These changes improve fabric quality . . . eliminate shade marks . . . reduce stop marks so that they usually dress out.

Be sure to see the New Kidde-Aveco Tricot Machine at the Knitting Arts Exhibition at Atlantic City, April 30 thru May 4. Booths 444 thru 449.

✔ **NEW CONTINUOUS LET-DOWN.**
It is easy to set and maintain because it's mechanical in operation. It completely eliminates shade marks and reduces stop marks. Fabric quality is improved.

✔ **NEW VARIABLE SPEED DRIVE.**
A turn of a hand wheel varies machine speed. No chain drive . . . no gears to be changed . . . quieter operation. Tachometer included.

✔ **NEW CONTINUOUS TAKE-UP.**
It permits quality to be established quickly by turning an adjustment screw. No gears or sprockets to be changed. No clutch. Once set, it requires no adjustment.

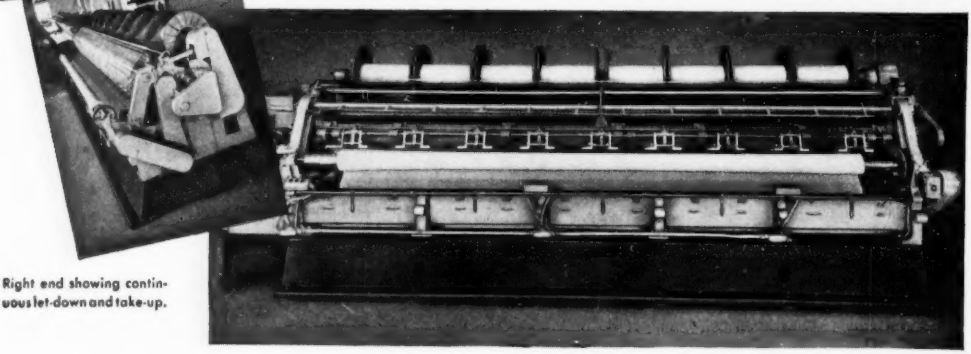
✔ **OTHER FEATURES**
These include improved plunger design, improved front guide bar lifting mechanism, quick-stop and jogging control.

Left end of machine showing enclosed gear box, pattern mechanism, motor and controls.

KIDDE MANUFACTURING CO., INC.,
BLOOMFIELD, N. J.

Kidde-Aveco

FOR TOP-QUALITY FABRICS



Right end showing continuous let-down and take-up.

the package is a

Picture Frame

for your product

GOOD PACKAGING isn't just a seasonal matter —a modern colorful package is a point-of-sale aid the year 'round.

Your package should reflect and frame the quality of your product. Let Apaco designers collaborate on your new packaging ideas —perhaps multiple packaging will increase unit sales. A phone call or a note on your letterhead will bring our representative A-FLYING.

APACO
ESTABLISHED 1868

ATLANTA PAPER COMPANY

Atlanta 2, Georgia

See our display
Booth 242—Southern
Textile Exposition
Greenville, S. C.
October 6—11

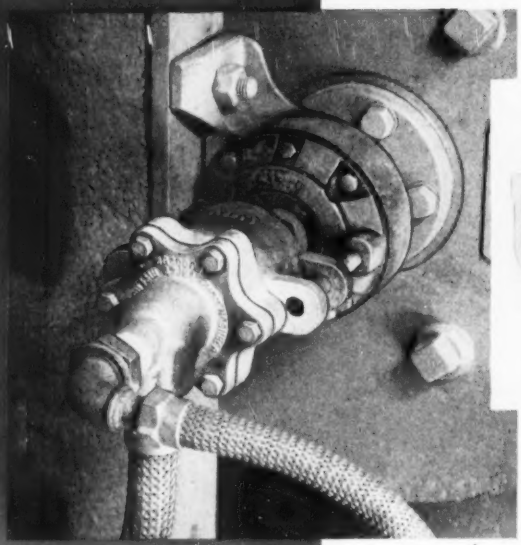
Manufacturers of Corrugated Shipping Cases • Display Folding Cartons • Textile Packaging

See them at Booth No. 455

Southern Textile Exposition

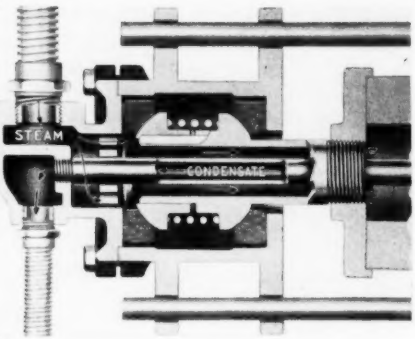
Greenville, S.C.

OCTOBER 6 TO 11



The Type L is covered in the big Johnson Joint Catalog "JJ"; Type S in a special Catalog "JS". Write for copies.

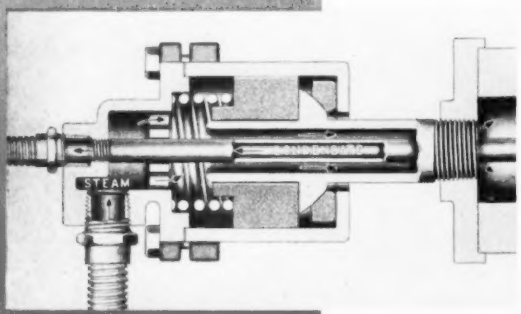
TYPE L JOHNSON *Rotary Pressure* JOINTS



Very much in the limelight these days, the Type L offers a simpler method of installing Johnson Joints that brings improved operation in the bargain.

The Type L has lugs added right to the body, so that simple rods can be used to support the weight of the joint and the connections. This arrangement removes all excess weight from the seal rings, leaving them only their primary task of maintaining an effective seal. Longer life, better efficiency and even more trouble-free service are direct results.

A typical installation of the Type L is shown here. The cross section view shows that it retains in full all the packless, self-lubricating and self-adjusting features of Johnson Joints.



TYPE S JOHNSON *Rotary Pressure* JOINTS

The self-supporting Type S is an ideal answer where, for example, support rods for the Type L cannot be readily provided, or piping connections present some difficulty. Since it shifts as the roll shifts and consequently defeats misalignment completely, it is particularly suited for service on calenders.

The Type S carries its own weight from a cost standpoint too. It is completely packless, self-lubricating and self-adjusting.

Products of The Johnson Corporation

815 Wood Street, Three Rivers, Michigan

Rotary Pressure Joints • Compressed Air Separators and Aftercoolers
Direct Operated Solenoid Valves • "Instant" Steam Water Heaters

SAVE 4-WAYS

IN MANUFACTURING NON-WOVEN FABRICS with RANDO-FEEDER and RANDO-WEBBER

SAVE

Capital Expenditure

Only one pair of machines—Rando-Feeder and Rando-Webber—is needed to make a non-oriented web. No carding, garnetting or lapping equipment is required.

SAVE

Mill Space

Very little mill floor space (less than 10′ x 5′) is required. At present only massive machines, not having the versatility of Rando-Feeder and Rando-Webber, are being used.

SAVE

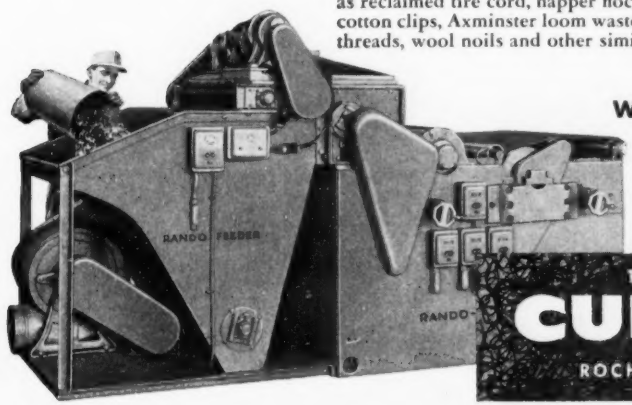
Production Time

The versatile Rando-Feeder and Rando-Webber produce webs of desired thickness . . . from paper thin to 2-inch thickness. Capacities of the machines depend upon the type and condition of materials being processed. The range of the machines is from 35 to over 100 pounds per hour. In addition resins can be introduced while web is being formed by a supplementary feeding device.

SAVE

Waste Fiber (and turn it into profitable products)

The web or mat produced is suitable for further processing into felts, wadding, heavy mats, and non-woven fabrics. To date waste fibers such as reclaimed tire cord, napper flocks, cotton linters, jute waste, garnetted cotton clips, Axminster loom waste, cotton, rayon, nylon mill waste and threads, wool noils and other similar materials have been processed.



WRITE today for more detailed information on how you can have a web made from your own fiber. Curlator Corp., 531 Blossom Road, Rochester 10, N. Y.

TEXTILE DIVISION
CURLATOR
CORPORATION
ROCHESTER 10, NEW YORK

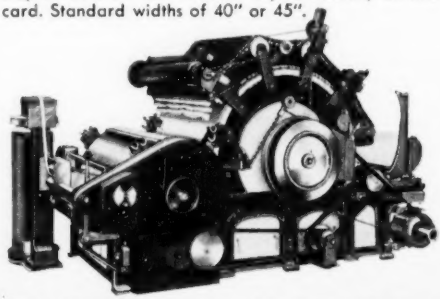
basic

You're in business to make money and *the efficiency of your machinery has a lot to do with profits.* Platt machines are developed in co-operation with the world famous T.M.M. Ltd. spinning research laboratory, built to rigid specifications and **proven in mills throughout the world.** This is the type of machinery that is basic to the successful operation of a cotton mill: highly productive, economical and of long life. Atkinson, Haserick would be glad to show you the proof. See you at Booth 601, Annex 3, Greenville.

basic TO CARDING

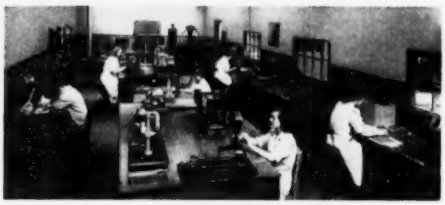
EVEN, NEPLESS WEBS . . . . . .

With Platt's Revolving Flat Card, accurate settings are easy to obtain and hold, insuring the production of an even, nepless web for both light and heavy carding. There is an exceptionally strong cross rail construction and rigid foundation. Vibration is virtually eliminated and air currents minimized. Cut staple fibers can be worked very successfully on this card. Standard widths of 40" or 45".



PLATT BROS.
(SALES) LTD.
OLDHAM, ENGLAND

Staff of 150 work on fiber control problems for all sections of the spinning industry.

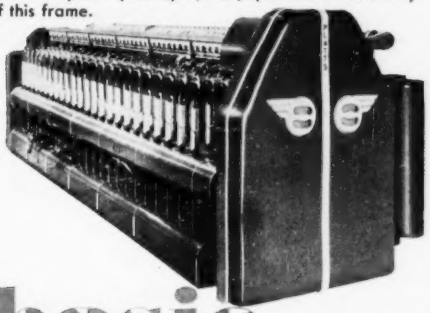


Laboratory provides continual information on all processes from bale to plied yarn.

basic TO ROVING

FIBER AND TWIST CONTROL...

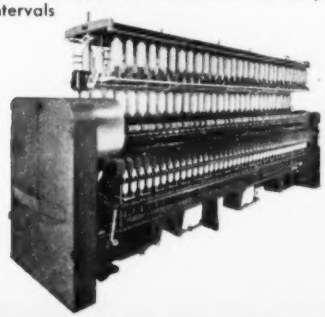
The new Platt M.S.2 High Draft Roving Frame operates with great efficiency at high speeds. Three drafting zones give unprecedented fiber control through a wide range. A stronger roving is formed by inserting more of the total twist close to the nip of the front roll. The firm roving sheds little fly. You will be impressed by the quiet operation, speed and efficiency of this frame.

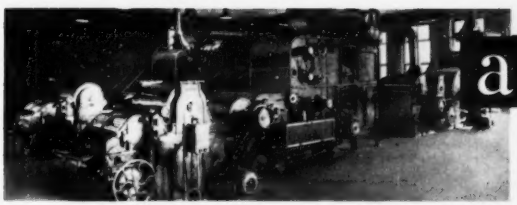


basic TO SPINNING

LARGE PACKAGES, HIGH SPEED...

The Platt M1 Ring Spinning Frame is a practical, proven frame for large packages. It has a choice of high drafting arrangements and a new spring arm roller weighting that adjusts to a wide range of staple lengths without altering the nip pressure. The simplified headstock has central lubrication, few gears and flexibility of turns per inch. Roller bearing spindle needs routine maintenance at only 2,500 hour intervals





Actual conditions in opening, picking, carding and spinning rooms are reproduced in the laboratory.

a management responsibility

Don't you owe it to your mill to investigate ALL the new processes, new fibers, new machinery. A visit to our Greenville Booth 601, Annex 3, would be time well spent. We are engineers and agents for some of the finest machinery developed in England.

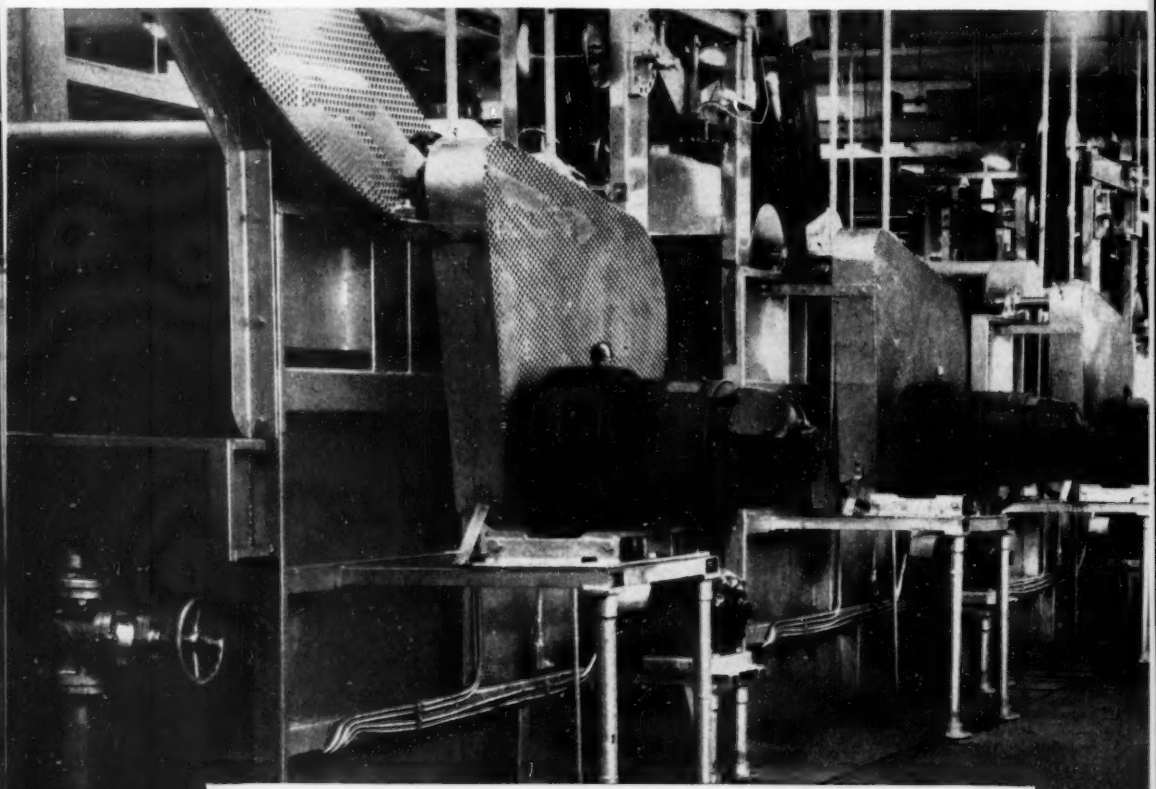
Atkinson, Haserick & Co.

Textile Machinery Agents and Engineers Since 1823

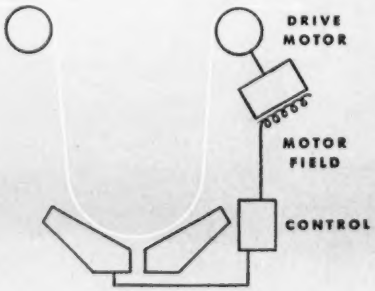
a.h.

211 CONGRESS STREET
BOSTON 6, MASS.
1639 W. MOREHEAD STREET
CHARLOTTE 2, N. C.

They did what you can do to produce more

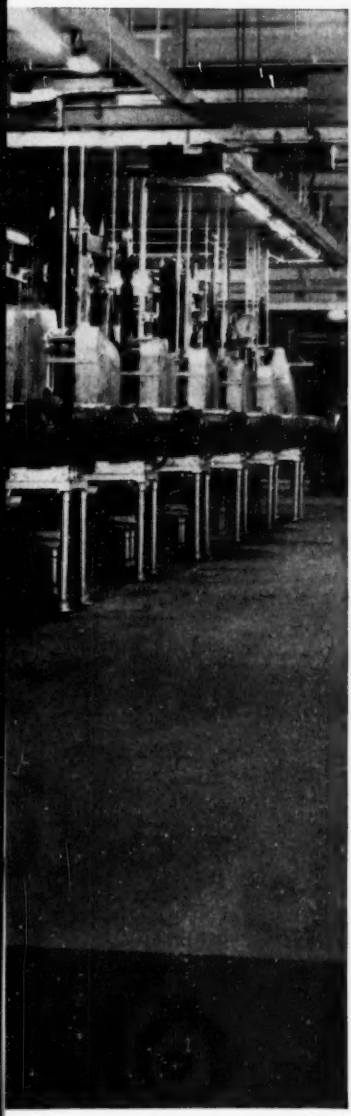


THIS NEW TENSIONLESS CONTROL DEVICE MAINTAINS SYNCHRONIZED OPERATION AT HIGH SPEED



As the cloth moves from one section to the next, a metal plate is so located that the cloth can touch it. When the wet cloth touches the plate, one speed relationship between the two sections is obtained. When the cloth is not touching the plate another speed relationship holds. Thus, the loop of cloth moves up and down a fraction of an inch several times a second, effecting a change in speed ratios. This maintains synchronism, without tension, between the finishing range sections.

Here's how this finishing range drive reduces costs and increases production



The drive for this new Riggs and Lombard "LAXLOOP" continuous washer, installed in the Bachmann Uxbridge Mill, offers many important operating advantages. Simplified controls and automatic tensionless synchronization afford greater ease of operation, economy of water and reduced labor costs.

The whole range can be controlled from one spot

Two controls, one for tensionless synchronizing and one for the drive motors, make it possible to control the whole range or each tub individually from one location. The individual drive-motor controls allow the operator control over each tub, or any combination of tubs, for setup and adjustments. The tensionless synchronous control allows 15 to 20 hours continuous operation without rethreading. Formerly, rethreading was necessary every three to four hours.

Automatic controls save water and prevent tie-ups

The control scheme also automatically shuts off the water supply every time the machine is stopped. With this system, the mill uses an average of less than three gallons of water per pound of material processed. This saving in water, with the resultant saving in steam, is of tremendous value to the mill. In addition, electric knockoff devices automatically stop the washer in case of a tangle or tie-up. An indicating light on the control panel even shows the operator which tub to go to if a tie-up occurs.

Call Westinghouse early on every job

If you are planning new equipment, a new mill, or plant modernization, be sure to call in Westinghouse early on every job. You'll get application help and the right equipment to do the job *best.*

HERE'S AN IMPORTANT FREE BOOK

This 32-page book gives you additional information about Westinghouse finishing machine drives. There are sections on tension control, cost factors, speed ranges, operating economies, maintenance features, and other vital points. Write for Booklet B-4034, "Westinghouse Equipment for Textile Finishing." Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania. J-94917

YOU CAN BE SURE... IF IT'S
Westinghouse

EQUIPMENT FOR THE TEXTILE INDUSTRY

WESTINGHOUSE

TEXTILE BANKING COMPANY

Inc.

Factoring Service

Puts your sales on a cash basis
Strengthens your cash position
Relieves you of credit losses

55 MADISON AVENUE • NEW YORK

MASTROL SYSTEM for Forced Hot Water Heating
MASTER CONTROL
SUB-MASTER REGULATOR
PNEUMATIC CONTROLS
No. 11 Self-Operating Regulators
PNEUMATIC CONTROLS
Thermostat
Hygrostat
Radiator Valves
Packless Valves Available
3-Way FLOWRITE Valve
FLOWRITE Diaphragm Valve
Pneumatic Switches
AIRSTREAM Thermostat
POWERSTROKE
Damper Motor
ACCRITEM REGULATOR
Compressed Air or Water Operated
FLOWRITE Valve
METAFLOW Valve
Available Packless
POWERS
TEMPERATURE and HUMIDITY CONTROL
For Heating and Air Conditioning Systems Industrial Processes
Water Heaters • Heat Exchangers Jacket Water Cooling
All Types of Baths Hospital Hydrotherapy
Most of your control problems can be solved sucessfully with the aid of a POWERS engineer and the proper application of some of our modern products. Why not profit from our 60 years of experience? There's no obligation. Phone or write our nearest office.
(ON)
Series 100 Pneumatic Indicating Regulator
Pneumatic
Right: Static Pressure Regulator
Left: Series 100 Recording Regulator
Self-Operating
Thermostatic Water Mixers
THE POWERS REGULATOR CO.
Established 1891 • Offices in Over 50 Cities • See Your Phone Book
SKOKIE, ILLINOIS • 3400 Oakton Street
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TORONTO, ONTARIO • 195 Spadina Avenue
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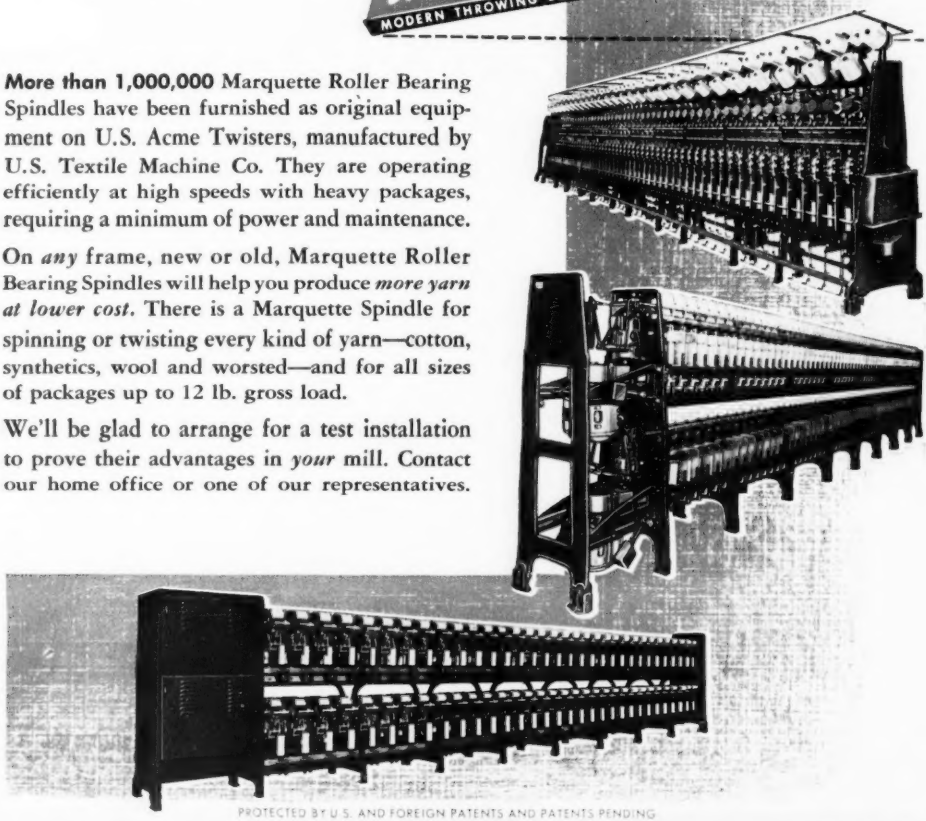
MEXICO, D. F. • Edificio "La National" 601

Marquette
ROLLER BEARING SPINDLES
with Full-Floating Footstep Bearing

standard equipment on U.S. ACME TWISTERS

MODERN THROWING EQUIPMENT



More than 1,000,000 Marquette Roller Bearing Spindles have been furnished as original equipment on U.S. Acme Twisters, manufactured by U.S. Textile Machine Co. They are operating efficiently at high speeds with heavy packages, requiring a minimum of power and maintenance.

On *any* frame, new or old, Marquette Roller Bearing Spindles will help you produce *more yarn at lower cost.* There is a Marquette Spindle for spinning or twisting every kind of yarn—cotton, synthetics, wool and worsted—and for all sizes of packages up to 12 lb. gross load.

We'll be glad to arrange for a test installation to prove their advantages in *your* mill. Contact our home office or one of our representatives.

PROTECTED BY U.S. AND FOREIGN PATENTS AND PATENTS PENDING

The Marquette METAL PRODUCTS COMPANY

CLEVELAND 10, OHIO • SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Representatives: C. H. WHITE, 2300 ROSWELL AVE., CHARLOTTE, N. C.; WILLIAM P. RUSSELL, BOX 770, ATLANTA, GA.
JOHN J. HALLISEY, 58 LIVINGSTON AVE., LOWELL, MASS.; HARRY KING, EASLEY, S. C.

Also Manufacturers of: HYDRAULIC GOVERNORS • FUEL OIL PUMPS • PRECISION PARTS AND ASSEMBLIES
WINDSHIELD WIPERS FOR AIRCRAFT, TRUCKS AND BUSSES • FUEL OIL INJECTORS

Textile Industries
Vol. 116 ● Sept., 1952

News in Brief

Major Upturn in Textiles at Hand? An industry-wide cycle of inventory replenishment, which traditionally represents a major upturn in demand, has been underway in the textile and apparel industries, according to an analysis by The Wool Bureau, Inc. Reports of increasing summer clothing sales from all areas of the country indicated further that consumers were convinced prices were stable and satisfactory; therefore, they replenished their wardrobes. This pattern of consumer buying will be accelerated during fall and winter, in the opinion of retailers

Cost of Research. In industrial research, the average annual cost per research worker is reportedly $8,500. However, if industrial research costs were prorated among the engineers and scientists, the average cost per professional man jumps to $20,100 per year. Engineers and scientists include research personnel, with at least a bachelor degree or the equivalent, who are actively engaged in some phase of their profession. In the federal government the average cost is $5,500 per research worker and $22,800 per engineer or scientist. In universities and non-profit organizations the employment of graduate students at a nominal stipend complicates the picture. On the basis of paid employees only, the average cost per engineer or scientist in these institutions runs $8,900 per year.

1952 Olney Medal Award. Werner Von Bergen of the Forstmann Woolen Co., Passaic, N. J., has been selected to receive the 1952 Olney Medal, according to an announcement by the award committee. Formal presentation of the medal will be made at the annual meeting of the AATCC in Boston in November. The medal has been awarded annually for the past nine years "for outstanding achievement in the field of textile chemistry."

Universal Size Nylon Stocking. A nylon stocking has been produced in France which is reported to fit any length leg and any size foot. Although it resembles an exceedingly heavy crepe fabric, the stocking is produced by a secret method, and the yarn is subjected to many processes. So far, the stocking has not been offered in quantity because manufacturing costs have been too high, and the eye and sales appeal of the finished goods are not satisfactory. The process may find application mainly in the manufacture of men's half-hose.

At Blue Ridge

were these long-time supporters of the Southern Industrial Relations Conference: H. Gordon Smith (left) of U. S. Rubber and Macon Miller of Fieldcrest.

TI's report of the recent 33rd annual session appears on page 149.

Wage Cuts in Massachusetts Mills. Wage cuts averaging 8½ cents an hour have been ordered for 20,000 members of TWUA who are employed in member mills of the New Bedford Cotton Manufacturers Association and the Fall River Textile Manufacturers Association. The wage cut nullifies a 6½ per cent increase authorized by the WSB; however, the employees retain 4 cents won on the cost-of-living escalator clause in the current contract.

Migration of Hosiery Mills Termed Healthful. The movement of hosiery mills from one part of the country to another is "a healthful and constructive transition—both morally and economically," according to George D. McKinney, president of the Independent Association of Stocking Manufacturers. In his IASM acceptance speech, Mr. McKinney continued: "Decentralization . . . is desirable from a national security standpoint, especially in the atomic age in which we live today. Moreover, it will, over the future years, do much to stabilize the cost factor of our product, and, at the same time, it will distribute opportunity for gainful employment countrywide and bring about greater per capita purchasing power."

Pigment Print Certification. An agreement covering the certification of the colorfastness to light, washing, and crocking of Aridye R pigment colors when applied to synthetic fabrics by commercial textile printers has been entered by Interchemical Corporation, Tex-

Virtually indestructible plastic nose molded integral with laminated barrel by patented "Plasti-weld" method.

What's your need?

Plastic base incorporates continuous metal rings molded to perfect alignment, giving positive protection against misposition in transfer.

HARD-TWIST NYLON?
This "Plasti-weld" bobbin has great strength to withstand yarn build-up pressures.

SOFT-TWIST YARN— NO-TWIST ACETATE?
The "Plasti-weld" bobbin surface has ideal retention and delivery qualities for such yarns.

CONDITIONING TREATMENT?
"Plasti-weld" bobbins are completely unaffected by the heat and moisture that injure other bobbins.

A.P.T.'s NEW synthetic Automatic Loom Bobbin is ALL-PURPOSE

Enables mills to get top efficiency on every yarn with the same bobbins.

A.P.T. plasti-weld
PAT. NOS. 2,378,901; 2,381,869
OTHER PATENTS APPLIED FOR

SOME ADVANTAGES OF USING A.P.T. CARRIERS

1. **SURFACE** of correct texture, groove and finish for free but controlled delivery of the particular yarn.
2. **STRUCTURE** by nature resilient and proof against chipping, splintering or cracking; of composition and hardness for the particular need, with light weight.
3. **MOISTURE RESISTANT** due to impregnation; of fibre construction inert to warping and distortion.
4. **UNIQUE DURABILITY**: retain their "brand new" degree of performance throughout their years of life. They do not "wear out" or diminish in efficiency from normal use.

American Paper Tube Co.
ESTABLISHED 1898
WOONSOCKET, R. I. GREENVILLE, S. C.
HUGH WILLIAMS & CO., TORONTO, CANADA

54 YEARS OF RESPONSIBILITY FOR EFFICIENT AND ECONOMICAL CARRIER SERVICE

tile Colors Division, Hawthorne, N. J., and the United States Testing Co., of Hoboken, N. J. This agreement is unique in that it is the first time a pigment print has been certified by the testing company. The agreement, although certifying a product manufactured by a supplier, applies to the finished product as it leaves the printers.

Employee Publication by Employees. The Textorian, Cone Mills' employee publication, is "employee-published" in that all operations for publishing the paper are handled by Cone employees with the exception of photo-engraving.

X-2 Applied to Cotton and Acetate. Dan River Mills' X-2 chemical has been applied to 100 per cent cellulose acetate, and the results appear satisfactory, according to the company. The chemical was introduced to permanently stabilize viscose rayon and rayon blends [TI for June, pages 100, 101].

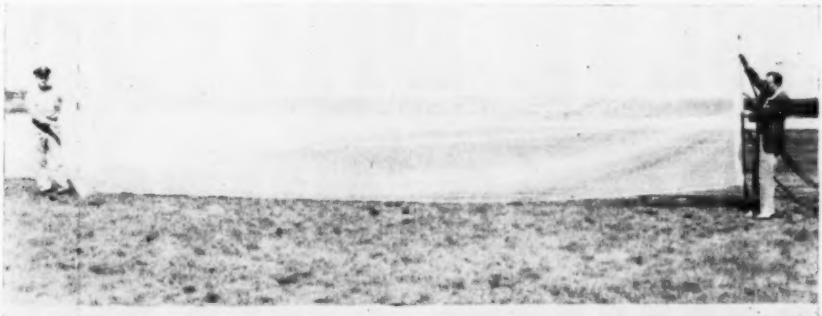
Post-Defense Business Markets Studied. Secretary of Commerce Charles Sawyer has ordered a study of potential markets for goods and services of American business to help prepare for the time when current defense goals have been reached. Department of Commerce business economists in cooperation with the Committee for Economic Development will conduct the study. The long range appraisal of the nation's economic future is scheduled for publication by January 1, 1953.

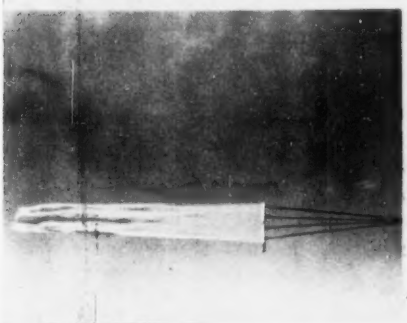
To Study New Tests for Cotton Fiber. The United States Depart-

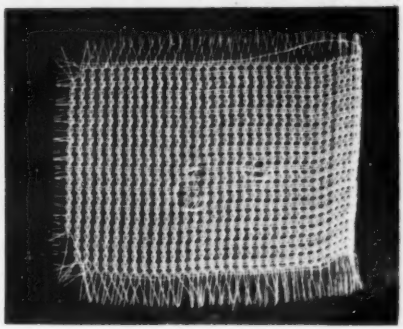
Plastic Fabric Adopted by Armed Forces for Tow Target Use

A fabric made of Bakelite polyethylene is reported to last longer than other fabrics at high speeds and altitudes, and to have been adopted for use as an aerial tow-target by the U. S. Navy and Air Force. Flown at 20 to 30 thousand-foot levels where temperatures are low, the banner-type targets undergo abnormal stress from the flutter produced by speeds over 360 miles per hour. The Bakelite fabric remains flexible at 60 below zero, and the minor degree of stiffening at extremely low temperatures tends to give it greater tensile strength under stress.

The tow-target (top photo) is made of two 36-inch widths of loosely woven polyethylene monofilaments seamed together. A special stabilizing weight keeps the banner upright in the air as a target for aerial gunners (bottom left photo). Extruded monofilaments, .019 to .023 of an inch in diameter, are woven into a locked leno weave, 12 by 11 threads per inch (bottom right photo).







Here it is—

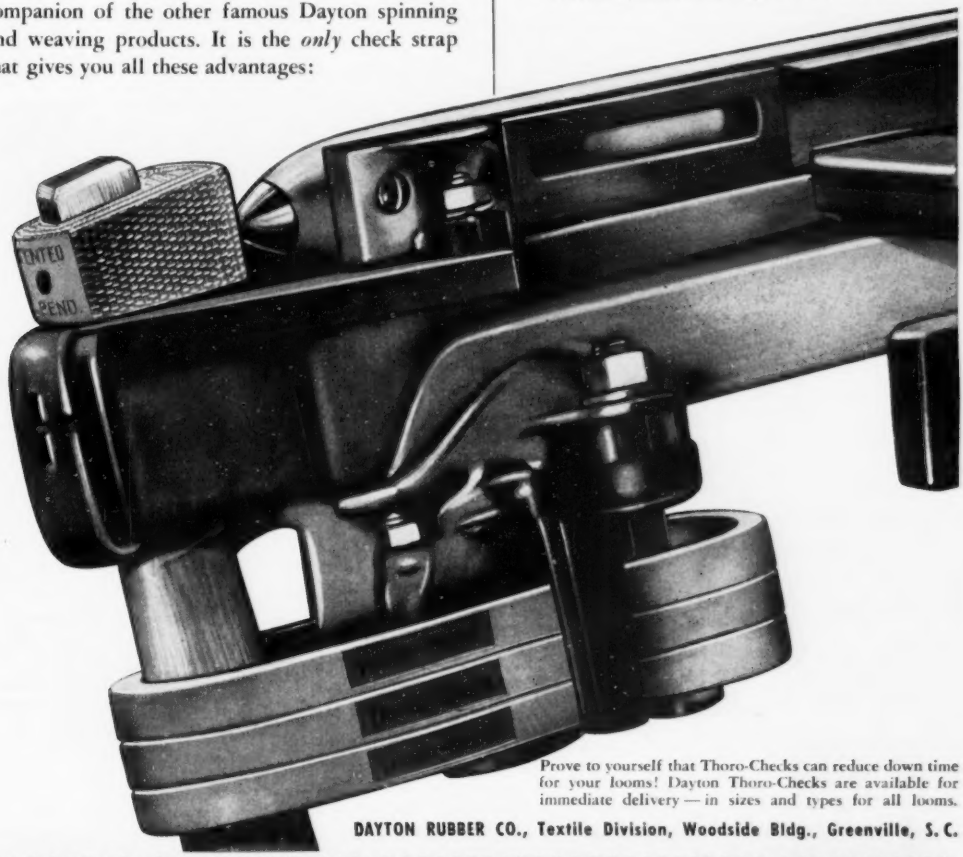
THE GREAT NEW DAYTON THORO-CHECK

Visit us at Booth No. 135, Southern Textile Exposition, Greenville, S. C., October 6th-11th.

It's today's biggest news in weave rooms—a completely *new* check strap, with all the long-life features you'd expect from the makers of the famous Dayco Cot . . . Dayco Long Draft Apron . . . Dayton Thorobred Pickers . . . Thorobred Lug Straps! Scientifically designed to provide properly cushioned snubbing action, the Dayton Thoro-Check gives maximum protection to shuttle, binder, picker, and picker stick. How does it *wear?* Actual weave room use shows it outlasts other check straps by 25% to 50%!

Yes, the new Dayton Thoro-Check is a worthy companion of the other famous Dayton spinning and weaving products. It is the *only* check strap that gives you all these advantages:

- ***Gives greater picker and shuttle life***
- ***Protects binder and picker stick***
- ***Outlasts other check straps by 25% to 50%***
- ***Rubberized fabric construction — no elongation***
- ***Smoother checking — carefree operation***
- ***Unaffected by temperature or humidity***
- ***Individual or multiple replacement***
- ***Famous Dayton precision construction***
- ***Proved by more than a year of weave room use***



Prove to yourself that Thoro-Checks can reduce down time for your looms! Dayton Thoro-Checks are available for immediate delivery — in sizes and types for all looms.

DAYTON RUBBER CO., Textile Division, Woodside Bldg., Greenville, S. C.

TEXTILE PRODUCTS FOR BETTER SPINNING AND WEAVING

Dayton Rubber

Since 1905

Memo

TO ALL WHO DESIRE BETTER PACKAGE DYEING

Precision Paper Products

sonoco
SERVES THE WORLD
PAPER CARRIERS
REG. U.S. PAT. OFF.

Better than ever! The Sonoco Dytex Tube is a proven yarn carrier for all standard forms of package dyeing. Standard sizes 5/8" I.D. x 6 3/4" long and 1 5/8" I.D. in varying lengths. Special sizes available. The 5/8" I.D. x 6 3/4" tube can be furnished in certain colors. The exclusive Plastavon Sleeve allows more even dye distribution and better control of "flow." Also reduces slippage in primary winding.

17th SOUTHERN TEXTILE EXPOSITION

OCT. 6-11 1952

SONOCO PRODUCTS COMPANY

MYSTIC CONN. | HARTSVILLE S. C. | BRANTFORD ONT.

DEPENDABLE SOURCE OF SUPPLY

ment of Agriculture, through the Southern Regional Research Laboratory, has contracted with Textile Research Institute of Princeton, N. J., to study new tests for cotton fiber characteristics which may relate to processing behavior. The project is scheduled for a period of two years.

Dyestuff Advertising Wins Acclaim. In the recent annual national creative awards contest held at Skytop, Pa., by the National Advertising Agency Network, Arnold, Hoffman & Co., Inc. of Providence, R. I., was given an Award of Merit for the current four-color dyestuff insert series which appeared in the textile trades press.

Canadian School Expands. A $200,000 addition to The Provincial Institute of Textiles at Hamilton, Ontario, Canada, is underway. The one-story annex, which will give the school 15,000 square feet more of working space, will be ready for occupancy by the beginning of 1953.

British Hosiery Report. In England, the Hinckley district hosiery manufacturers have decided not to employ any women who do not wear stockings. The manufacturers emphasized that operatives, whose livelihood depends upon wearing stockings, should realize that they must meet this obligation. The employers wonder how any female operative could even consider not wearing stockings during the present market crisis.

Dynel-Feather Blend for Cold Climates. A new bulk filling material for sleeping bags, cold climate clothing, mattresses, and upholstering is a specially processed blend consisting of feather fibers and dynel. The combined materials have good heat insulating properties, high filling power, and make a soft filling that is naturally flame resistant, according to an announcement.

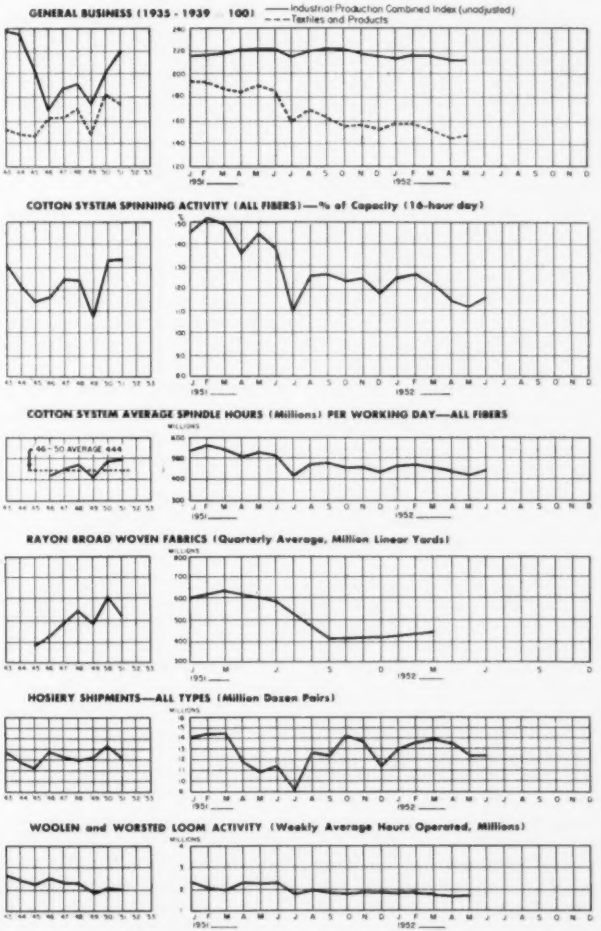
Economic Losses and Communism. Textileather Corporation, in its annual report to employees this year, adopted the unique procedure of stating production problems in terms of the international political situation with which everyone is unhappily familiar. In a message from Jules D. Lippmann, company president, and in graphs which picture the cost of spoilage, rework, absenteeism, and plant accidents, the report draws a parallel between the "red ink" menace of avoidable economic losses and the red menace of communism.

Nationalization Did Not Pay Off. News from Hungary is that with the nationalization of the knitting industry, quality became so low that it was necessary to reorganize the industry, giving each manufacturing unit a greater autonomy with a manager in charge of production and responsible for quality.

(*Continued on page* 287)

Textile Industry Activity Charts

Source of information: Bureau of the Census, U. S. Department of Commerce; National Association of Hosiery Manufacturers.


GENERAL BUSINESS (1935 - 1939 = 100)
Industrial Production Combined Index (unadjusted)
Textiles and Products
COTTON SYSTEM SPINNING ACTIVITY (ALL FIBERS)—% of Capacity (10-hour day)
COTTON SYSTEM AVERAGE SPINDLE HOURS (Millions) PER WORKING DAY—ALL FIBERS
RAYON BROAD WOVEN FABRICS (Quarterly Average, Million Linear Yards)
HOSIERY SHIPMENTS—ALL TYPES (Million Dozen Pairs)
WOOLEN and WORSTED LOOM ACTIVITY (Weekly Average Hours Operated, Millions)

AN EXECUTIVE Views

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

A Word for Management

THESE HAVE BEEN difficult months through which the textile industry has just passed. Some have called it the worst period since 1932. Others have been more conservative, but all have agreed that prices have been drastically low and buyers terribly scarce.

It appears now that we are about to emerge from the swamp and reach the higher plains on the other side. Perhaps, then, this is a good time to pause for a moment and take stock of our situation. Sometimes it takes a period of great difficulty to give us a new and clearer perspective of work which often seems to become routine.

Many of the readers of TEXTILE INDUSTRIES will not remember the difficult times of the 1930's. There are others, however, with more years of experience, who will recall most vividly the difficult months and years of the Great Depression. Our industry found then, as it has found again in recent months, that there is no substitute for good management.

When we stop to think about it, probably most of us realize that when earnings are good we do not give much consideration to the cost of operation—or, perhaps, we should say that we do not give *as much* thought to the cost of operation. On the other hand, when earnings are low and the sailing is really rough, we become very "penny-conscious," and we spend much more time looking at balance sheets and cost statements.

That calls to mind the old story of the farmer whose barn roof was leaking. When the sun was shining he did not need to fix the roof, and when it was raining it was too wet for him to go on top of the barn. Many of us in the textile industry have unconsciously taken that attitude toward effective principles of management.

What can we do to establish more effective and scientific management principles?

Channel of Command. For one thing—and this is fundamental—we can establish a sound organizational structure with clear-cut divisions of duties and responsibilities. We can have very specific organizational charts which will show the line of authority and the channel of command. Without this sound organizational structure, we have chaos rather than an industrial operation.

Sound Rate Basis. We can also establish sound and equitable base rates of pay for our employees. We are not referring here to either an increase or a decrease in the textile wage scale, but we are talking about trying to establish fair and honest rates, based upon the degree of skill and the amount of intelligence required to operate that particular job. No one would think of paying a sweeper the same hourly rate as he paid a loom fixer, but many of us are guilty of inequities that are almost that bad. Today is the time to start straightening out these tangles.

Industrial Engineering Principles. It used to be quite fashionable to laugh up our sleeves at the "efficiency experts" who, not many years ago, were just beginning to make their appearances in the textile industry. Most of us have come to realize, however, that time and motion studies can aid us tremendously in the more efficient operation of our mills.

In this same connection, we must not forget the importance of proper machine layout so that work will progress in an orderly manner through the various departments of our mills. To get this work from one department to another, we must be familiar with modern methods of materials handling. Great strides have been made in this field in recent years and it is essential that each of us familiarize ourselves with these methods.

How many mills in the textile industry have some effective system of quality and production control? Fifteen years ago there were not very many but today there are many more systems for the effective control of quality and production. Each of them is paying dividends in more efficient management.

It may be that we have also been lax in establishing inventory systems, without which we run the risk of encountering shortages of machine parts and other items of supply at crucial moments. Through an efficient system, inventory may be replaced in an orderly manner well in advance of the time when bins will become empty.

Marginal Mills. At first glance,

you may feel that the points we have mentioned are rather self-evident. You may feel that you are already doing all of these things in your plant. All we ask is that you take a second look and if you still feel that you are doing everything you can in connection with each of these points, then you may rest assured that you have a relatively efficient plant and that you are already thoroughly informed with regard to scientific management procedures.

On the other hand, if you feel that you are weak in one or more of these points, then the time to reexamine your situation is now.

Economically, our industry may not yet be out of the woods. We hope that we are. We hope that the dark days of the second half of 1951 and the first half of 1952 are definitely behind us. We hope that we have crossed the swamp and that the firm ground is now under foot. No man, however, can be sure, and the men who fail to exercise their ability and their intelligence in setting up sound and effective organizations within their mills, in watching the pennies as well as the dollars, are going to be the men who operate "marginal mills."

All of us have heard the prediction that the next time we go into a really major depression (you may wonder what this has been we have just encountered) several hundred thousand spindles are going to fall by the wayside, and these are going to be spindles that have been operating in these so-called "marginal mills."

Are your spindles going to be in that group? It is worth thinking about.

The DuPont Story. It might not be an exaggeration to say that the 150th Anniversary of the E. I. DuPont DE Nemours & Company, which was celebrated a few weeks ago, is indicative of what sound management practices can do. We need not review the DuPont story because it has been dramatized on the motion picture screen, and by radio, as well as in the newspapers. You know, however, that a century and one-half ago the DuPont Empire was founded on a very small scale in what was, at that time, a trackless wilderness. Today, it is a gigantic enterprise which goes deeply into many basic American industries, such as textiles, explosives, chemicals, etc.

If DuPont had not exercised sound management policies, the small mill which was begun on Brandywine Creek near Wilmington, Delaware, might have been one of these "marginal mills" we have been talking about. The DuPont story is, of course, the story of American enterprise in a land of opportunity, but it is also the story of sound management.

Incidentally, if you have not yet seen it, you will enjoy reading "DuPont—The Autobiography of American Enterprise." This volume was published by the DuPont Company in commemoration of its 150th anniversary. It is an attractive volume with many photographs and with a great deal of interesting reading.

(*Continued on page* 291)

Sept. 10-11—Fall meeting, **The Fiber Society, Inc.**, Princeton, N. J.

Sept. 11-13—Third **Canadian Textile Seminar**, Queens University, Kingston, Ontario, Canada (previously scheduled for Sept. 18-20).

Sept. 25-26—Annual convention, **National Association of Cotton Manufacturers**, Wentworth-by-the-Sea, Portsmouth, N. H.

Sept. 25-26—Cotton Textile Finishing Conference, sponsored by the National Cotton Council, Washington, D. C.

Oct. 2-3—Annual outing, **Chattanooga Yarn Association**, Chattanooga Golf and Country Club, Chattanooga, Tenn.

Oct. 6-11—Seventeenth **Southern Textile Exposition**, Textile Hall, Greenville, S. C.

Oct. 16-17—Annual convention, **The Quartermaster Association**, Biltmore Hotel, Atlanta, Ga.

Oct. 17-18—Meeting, **Green Mountain Textile Overseer's Association**, Proctorsville, Vermont.

Oct. 20-24—40th **National Safety Congress and Exposition**, Industrial safety sessions at Conrad Hilton, Congress, and Morrison Hotels, Chicago, Ill.

Nov. 5-7—Sixteenth annual **Time and Motion Study and Management Clinic**, Hotel Sheraton, Chicago, Ill.

Nov. 6-8—31st annual convention of the **American Association of Textile Chemists and Colorists**; also the Textile Dyeing and Finishing Exposition, Hotel Statler, Boston, Mass.

Nov. 14-22—Annual conventions, **Carded Yarn Association** and **Southern Combed Yarn Spinners Association**, Convention cruise to Bermuda.

Nov. 19—34th annual meeting, **American Standards Association**, Waldorf-Astoria, New York, N. Y.

Dec. 1-6—20th **National Exposition of Power and Mechanical Engineering**, Grand Central Palace, New York City.

1953

Jan. 19-22—Plant Maintenance Show, Public Auditorium, Cleveland, Ohio.

Mar. 26-28—Annual convention, **American Cotton Manufacturers Institute**, Palm Beach Biltmore Hotel, Palm Beach, Fla.

April 20-24—National Packaging Exposition, Navy Pier, Chicago, Ill.

April 27-28—Annual convention and conference, **National Association of Hosiery Manufacturers**, Claridge Hotel, Atlantic City, N. J.

April 27-May 1—Knitting Arts Exhibition, Auditorium, Atlantic City, N. J.

May 18-22—Materials Handling Exposition, Convention Hall, Philadelphia, Pa.

May 25-30—Annual conference, **Textile Institute**, Llandudno, North Wales.

June 18-20—Annual meeting, **Southern Textile Association**, Mayview Manor, Blowing Rock, N. C.

Three Reasons Why

JACOBS

PICKER STICK ASSEMBLIES *Last Longer*

JACOBS REINFORCED "Verybest" Check Straps give 100% performance—*longer!*

With 12½% more wearing surface these check straps conform to the angle of the Picker Stick. Made of select quality hairy or oak leather, they give more gradual checking, less loom shock, save power, and add longer life.

JACOBS Picker Sticks stay "alive"—*longer!*

Made of the finest straight-grained select hickory obtainable, air-dried at controlled temperatures, Jacobs Picker Sticks impart that necessary "live" whipping action to the shuttle longer than any other picker stick made.

JACOBS REINFORCED "Verybest" Lug Straps can "take it"—*longer!*

Reinforced in vulnerable spots, these Lug Straps offer lower operating costs, less breakage, and longer wear. They are made to operate at high speeds, and soften the extreme impact of modern high speed looms.

Save time with less loom fixing

Jacobs Loom Necessities manufactured and stocked at both Charlotte, N. C. and Danielson, Conn.

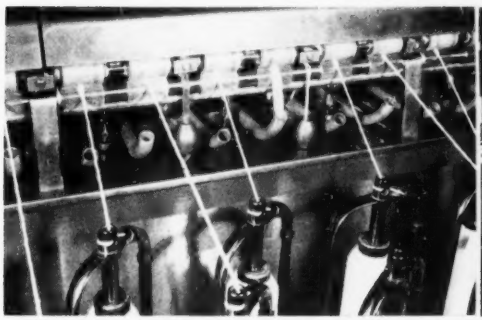
THE BULLARD CLARK CO.

JACOBS

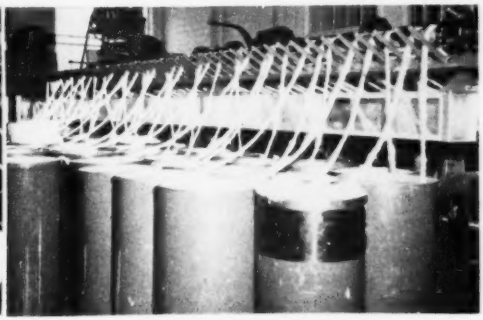
SOUTHERN DIVISION Charlotte, N. C.

NORTHERN DIVISION Danielson, Conn.

NEW Equipment AND MATERIALS



PNEUMAFIL BROKEN END COLLECTOR receives stock from the rolls as shown in this picture.



COLLECTED STOCK PASSES THROUGH DUCT on roving frame and in front of electric eye located at far end of frame. Electric eye stops frame.

Electric Eye Stop Motion for Roving Frames

The roving frame stop motion (Pneumastop) which operates by a combination of the broken end collector (Pneumafil) and a photo electric eye has now been placed on the market, following pilot installations in several plants (Burlington, Stevens, and Riegel). Advance notice of this development was given in the May 1951 issue of TEXTILE INDUSTRIES.

Although the manufacturers of Pneumastop believe it will improve efficiency and production at the roving frame, they are conservative in their claims on these points. It is also thought that upon installation the mill will accrue savings through less waste, increased production in later processing, decrease in operational defects, and reduced operator training through specialization of jobs.

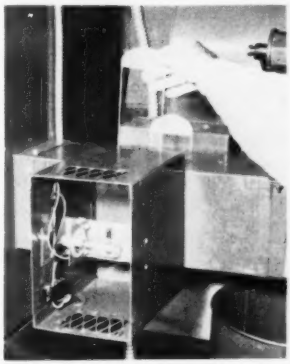
As may be seen in the accompanying photographs, the broken end collector located beneath the front rolls on the roving frame receives the broken end and conveys the stock by pneumatic action through the duct at the back of the frame (or located at any position favorable to the operation of the equipment) to the main collector unit at one end of the frame. On its passage through the duct, the stock passes in front of an electric eye, which actuates the stopping motion on the frame.

After the broken end is pieced, the frame is started in the usual manner.

The electric eye may be adjusted to stop the frame according to any amount of stock passing in front of the eye. Removable glass covers at the eye permit quick cleaning so that streamers or lint which may gather do not cause operation of the photo electric eye and subsequent operation of the stopping motion.

Furthermore, the equipment is so regulated or may be set so that the roving frame does not stop immediately on the change of the build, but is actuated only at favorable points for piecing.

Electronic tubes and equipment are of the type which have had several years usage in other industrial applications—though new to the textile industry—and no undue trouble is anticipated by the manufacturers in this respect. Although service will be supplied by the makers, it is said that mill personnel may keep the electronic system operating after instruction.

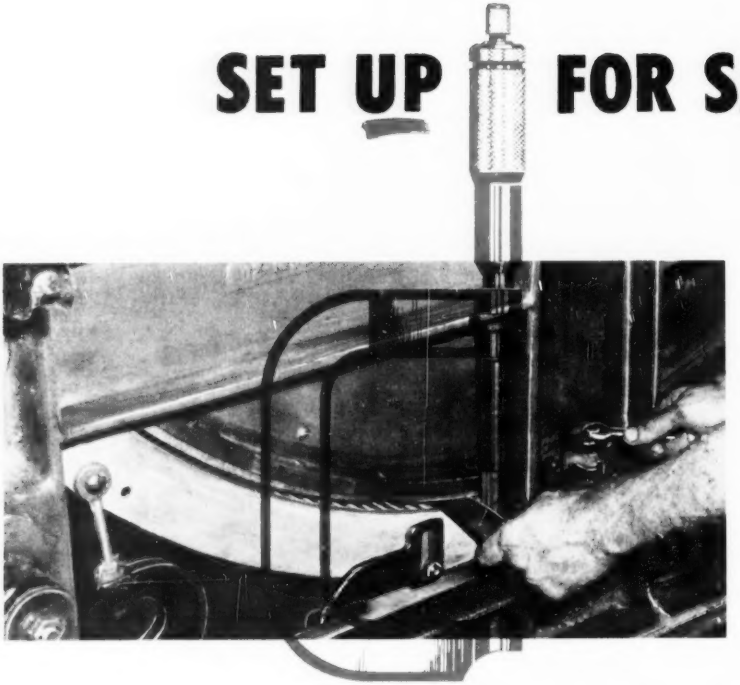


THE ELECTRIC EYE with cover removed and showing how removable glass covers provide for quick cleaning.

Cost of the equipment is expected to be about $1150 per frame.

The manufacturer has available literature which assesses some of the possibilities which may be given con-

SET UP FOR SAVINGS



WITH THE CLOSER TOLERANCES OF JENKINS SCREENS

Set them up *closer* under the card cylinder—and give Jenkins screens a chance to save you money! Jenkins builds them to set just as closely to your card cylinder as you require . . . to take out more motes and trash, and eliminate the loss of good cotton.

Your Jenkins screens are easily installed for maximum economy. Their engineered uniformity assures a close, easy fit at every point . . . gives a "perfect circle" under card cylinder . . . makes tedious, time-consuming adjustments unnecessary. In many cases, card grinders report they can install Jenkins screens in one-half the time required for an ordinary screen.

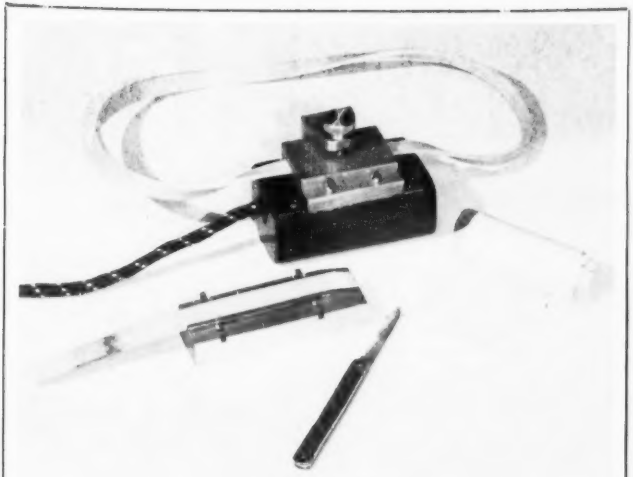
If you're *not* saving money with your Jenkins screens, it will pay you to check their setting—or consult a Jenkins representative.

JENKINS

ENGINEERED PRODUCTS

JENKINS METAL SHOPS

GASTONIA • NORTH CAROLINA



Equipment for Splicing Endless Condenser Tapes

Shown here is the equipment for splicing endless condenser tapes marketed by one manufacturer. It consists of a portable electric vulcanizer, skiving bar, and gum.

To splice a condenser tape: Skive ends of tape on angle (wet razor blade or sharp knife with slow short strokes will prevent tearing of rubber at thin edge). Wipe skived ends with alcohol or a non-oily solvent.Cut piece of splicing gum slightly larger than skived area.

Set slide on vulcanizer to width of tape and tighten screws. Vulcanizer can be set on preheat while preparing tape. Place gum on one end of skived portion with adjustable clamp holding tapes in position to make smooth contact. Place vulcanizer in position and turn thumb screw down to bring pressure against tape with top plate.

Allow to vulcanize for approximately 15 minutes. Remove, trim or sand that portion of gum on edge of tape. Tape is then ready for use.

The Dayton Rubber Co., Dayton, Ohio.

For additional data, request item I-314, using business reply card on page 286.

NEW Equipment AND MATERIALS

hyde and melamine resin after finishes, starches, gums, etc. It is a poly-resinous, non-ionic compound, the manufacturer states.

Woonsocket Color & Chemical Co., Woonsocket, R. I.

For additional data, request item I-307, using business reply card on page 286.

Automatic Turret Winder Provides Higher Production in Full Decating

A new automatic turret winder for use with the Gessner full-decating machine insures increased production, the manufacturer states.

The hoist to lift the perforated rolls wound with cloth and apron has been eliminated. The rolls are transferred from the winder to the carriage which carries them to the decating kettle by means of a revolving turret. This turret is push-button controlled and is locked securely into place at the end of each cycle.

Automatic guiding of the apron does away with any loss of time for straightening, it is claimed, keeping the apron free from wrinkles. Tension on the apron is easily maintained by the use of a friction roll.

The rolls of cloth and apron are cooled in the winder rather than in a cooling frame, thereby saving the floor space which a cooling frame would otherwise require.

Designed to give a production of 10

(Continued on page 218)

sideration in obtaining low costs without sacrificing quality, when using the stop motion; and the company can supply tables of work distribution for several hank counts, showing time for doffing, creeling, piecing, and rest.

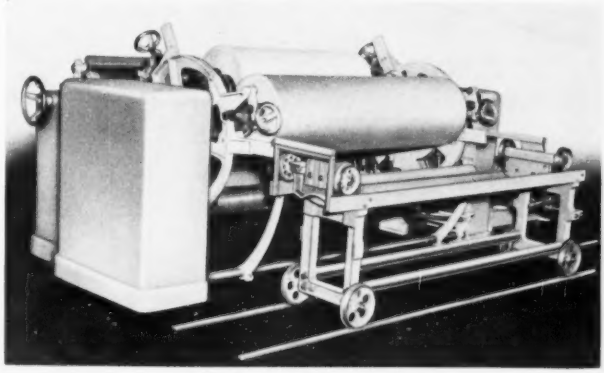
Pneumafil Corporation, 2516 Wilkinson Blvd., Charlotte, N. C.

For additional data, request item I-310, using business reply card on page 286.

Permanent Duller for Rayons and Cottons

A new permanent duller for viscose and acetate rayon and cotton is said to be compatible with urea formalde-

Automatic turret winder for Gessner full-decating machine.



Staley will have the welcome mat out for you at the

Leading textile companies in ever-increasing numbers look to Staley as a dependable source of supply. Your local Staley representative is ready to show you the many advantages of dealing with Staley . . . see him at the show!

PRODUCTS FROM CORN

Staley's®

Shorts and Remnants

Do We Run Things This Way?

Do you do your purchasing the way they do it in Washington? Taxpayer's Dollar, published by the U. S. Chamber of Commerce, wonders if you would buy 615,567 more typewriters than there are people to use them, as the Federal Government has. Or enough gaskets for the front axle housing of delivery trucks to last for 104 years. Or a carpenter's square for $4.35 when it could be purchased at a mail order house for $1.97.

Would you waste time and money making a survey on the type of materials mothers prefer in babies' clothing? Would you buy back for $2,500,000 an engineer depot at Baton Rouge, La., which was sold only three years ago for 10% of that figure?

The obvious answer is "no"!

Oh! yes we do! But it brings back the conversation we had with a mill man not too long ago. His competitor had just underbid him on a big order, taking the contract at a loss and upsetting the market still further. Our friend cussed his competitor black and blue and from one end to the other, then ended with the classic statement, "I wish I had done the same thing!"

Nylon Trumpets

"On page 149 [June '52] you had a paragraph on nylon trumpets. Will you please advise who is the manuturer . . . ? "

VERNON MANESS
Robbins Mills, Inc.
Aberdeen, N. C.

► Made by Saco-Lowell.

Trainee from India for American Mills?

". . . attracted by the full feature article of 'Textile Training'. . . is the foundation of economy, efficiency, quality, cost, etc. I would like to undergo such type of training, if any mill [with training program] can welcome the foreigners as trainee. I will be glad to take such type of opportunity. I am young man of the age 24, three years technical training in technology, worked as a loom fixer for one year, then was promoted as overseer. After undergoing such training in the mills, I intend to take, by the side, a thorough instructive course in a recognized institute in U.S.A."

YASHVANTLAL C. JARIWALLA
Co. Jamnadas Balubhai Jariwala
No. 23 Fulgali Bhuleshvar
Bombay 2, India

► We have suggested contact with the American textile schools. Any mill wishing to cooperate with this man by giving employment, may contact him direct.

See pages 133-148D for full details.

"Textile Training" Takes to the Air

"In a recent bulletin published by the Elliott Service Company, reference was made to an article in the March 1952 issue of TEXTILE INDUSTRIES. We are writing to request a reprint of this article . . ."

H. W. RUBOTTOM
Training Supervisor
Consolidated Vultee Aircraft Corp.
San Diego, Calif.

► A popular article in and out of the textile industry.

Chart

"We will greatly appreciate your sending to us a copy of the chart 'American Textile Industries.'"

MAURICE SANDS
Mojud Hosiery Co., Inc.
Long Island City 6, N. Y.

Seminar Report

"Of great interest to us is an article . . . May 1952 issue . . . 'Wool Bureau's Research Seminar at Lowell.' . . . would like five copies complete minutes of this meeting. We take this opportunity to congratulate you again on your magazine. . . "

HERBERT C. ERVIN
Asst. Secretary
M. T. Stevens Southern
Milledgeville, Ga.

► The Wool Bureau has reprints of the TI article; as a rule, complete stenographic reports of meetings will have to come from the sponsoring organization.

With this issue, John C. Cook becomes business manager of "Textile Industries," succeeding Maynard L. Durham who has served in that capacity for the last six years.

Maynard has taken charge of the Mid-Western advertising office in Chicago for several of the Smith publications and will be western Manager of "Textile Industries" and "Southern Power & Industry," another of the six W. R. C. Smith publications.

Durham

Cook

John Cook was business manager of "Textile Industries" for a number of years prior to 1946 when he left the W. R. C. Smith Publishing Company to go to South America. Rejoining the company three years ago, he has been representing two of the Smith publications in the Chicago territory.

Outstanding Performance

For superior knitting day in and day out, you can depend on Textile Spring-Beard Needles. They are strong at every crucial point — the butt, the beard, the shank. A special steel formula, proper tempering for ideal resiliency, and Textile's rigid scientific controls — automatic and electronic — are your assurance of a finer fabric and lower production costs.

Strength is just one of the many advantages of Textile Spring-Beard Needles. You'll see the difference once you've tried them.

TEXTILE MACHINE WORKS, READING, PENNA.

Textile

SPRING-BEARD NEEDLES

For Full-Fashioned Knitting
For Tricot Knitting

"Textile Hall will literally 'bulge at the seams' . . . ."

The Greenville Show

October 6-11, 1952

TEXTILE HALL in Greenville will literally "bulge at the seams" when the Southern Textile Exposition comes to town in October. At least, that's the way TI's editors see it. Because of the highly competitive conditions existing in the textile industry at this time, it is probable that interest in more efficient equipment will run high and that previous attendance records will be broken.

More than 250 suppliers to the textile industry have contracted for space in which to exhibit their wares at this 17th Greenville Show to be held during the week of October 6-11. Products which have not been shown before can be seen.

To accommodate this large number of exhibitors, approximately 10,000 sq ft of space have been added, Textile Hall Corporation officials report. A one-story addition of brick and steel, 74 ft by 108 ft, has been erected. It adjoins the main building and connects with the steel annex, replacing the temporary annex removed after the 1950 Show.

Across the driveway from the new addition another brick building, 48 ft by 62 ft, has been completed. The buildings are connected by a wide passageway.

The first thing to catch the eye of veteran visitors to Textile Hall will be the redecorated lobby, with a new accoustical ceiling and improved lighting. Secondly, a stair tower located about midway of the main building, providing another stairway to the second floor and balcony, has been completed. This will prove a great convenience to visitors, and will also relieve the traffic on the main stairways.

Transportation. Greenville is served by rail, bus, and air lines. No special schedules for Exposition visitors are contemplated; however, extra equipment will be provided as required to accommodate those planning to attend.

In some instances special cars can be arranged for parties of sufficient size by contacting passenger representatives of appropriate railroads. This same situation exists

THE GREENVILLE SHOW
October 6-11

with the commercial air lines.

Housing. Arrangements have been made to accommodate all who are planning to attend the Show, both mill men and exhibitors. Several attractive motor courts have been built in and around Greenville to supplement the hotels which were available for the last show. In addition, 100 rooms in the new Clemson House at Clemson, S. C., have been earmarked for visitors to the Exposition. As in the past, owners of guest houses and private residences have opened their doors for this occasion.

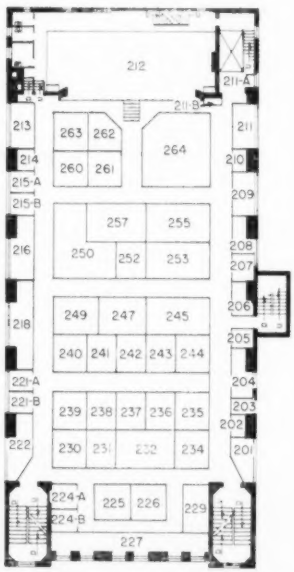
Reservations should be made through the Secretary of the Rooms Committee, care of Textile Hall Corporation, P. O. Box 1323, Greenville, S. C.

Admission. Season tickets for textile mill executive and supervisory personnel are being distributed by the exposition management. Mills that have not received tickets and desire them should send a list of the names of those planning to attend to Textile Hall Corp.

TEXTILE HALL TODAY. The annexes to Textile Hall in Greenville, S. C., can be seen in this photo which was made recently. The new one-story brick structure, in the center of the photo, adjoining the main building is Annex No. 2. Immediately behind it is steel Annex No. 1 which was constructed for the 1942 show. At the extreme right are Annexes No. 3 and No. 4. About midway of the

FIRST FLOOR PLAN

SECOND FLOOR PLAN



Additional tickets can be had by contacting exhibitors. TI's readers may use the convenient business reply card on page 286 for requesting tickets; no postage is required.

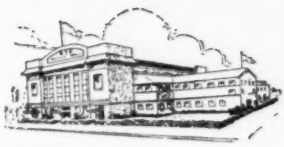
The show will be for members of the textile industry only.

Show Hours. The Exposition officially opens on Monday morning, October 6, at nine o'clock and closes at one o'clock on Saturday afternoon, October 11. Hours are from 9:00 A.M. to 7:00 P.M. daily except Saturday, the final day, when the hall will be closed at 1:00 P.M.

Exposition Officials. Officers of Textile Hall Corporation are: W. G. Sirrine, chairman of the board; James H. Woodside, president and treasurer; W. W. Carter, vice-president; and Miss Bertha Green, secretary.

Directors are: John W. Arrington, Jr.; Sydney Bruce; W. W. Carter; Thurmond Chatham; Donald Comer; Herman Cone; Robert I. Dalton; L. O. Hammett; C. E. Hatch; Edwin Howard; E. S. McKissick; W. S. Montgomery; W. W. Pate; Ernest Patton; W. G. Sirrine; F. W. Symmes; Harold R. Turner; George M. Wright; and James H. Woodside.

Directory of Exhibitors. On the following pages in this special section devoted to the 17th Southern Textile Exposition is a directory of the exhibiting companies, their addresses, their booth numbers, what they supply to the industry, and their representatives to attend.

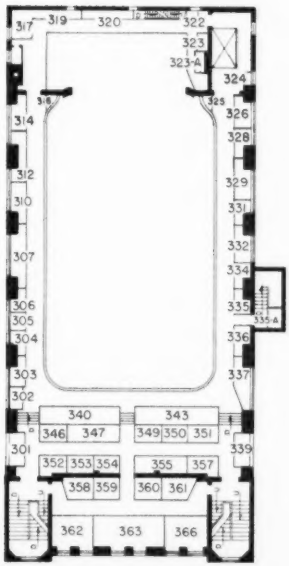


THE GREENVILLE SHOW
October 6-11

For convenience of the mill men planning to visit the Exposition, floor plans of the exhibition hall are reproduced here to assist them in locating their supplier friends. Simply find on the diagrams the booth number listed opposite the supplier's address in the directory and there is where you will find him at the Show.

main building wall a new stair tower is visible. It was built to provide another stairway to the second floor and balcony, and relieve traffic on the main stairways. The floor plans reproduced below incorporate these changes. Mill men can easily locate their supplier friends exhibiting at the show by finding on the diagrams the booth number listed opposite the firm's address in the directory on the following pages.

BALCONY PLAN



Directory of Exhibitors

(Although prepared especially for the Greenville Show, this listing will later serve as a useful directory for reference purposes.)

ABBOTT MACHINE CO., INC.
Wilton, N. H. *701*
Suppliers of: Textile winding machinery.
L. S. Ligon, Southern Mgr.

ACME STEEL CO.
2840 Archer Ave.
Chicago, Ill. *131*
Suppliers of: Strip steel, box strapping, etc.

ALDRICH MACHINE WORKS
Greenwood, S. C. *264*
Suppliers of: Blending, opening, cleaning, and picking equipment.
A. P. Aldrich, Jr., Pres.
W. D. Wornall, Sales Rep.
Ben R. Morris, Sales Rep.
B. Gales McClintock, Sales Rep.

ALLEN BEAM COMPANY
130-156 River Road
New Bedford, Mass. *301*
Suppliers of: High speed wooden warper beams and wooden beam heads; high speed warpers and creels.
Joseph Bowler, Jr., Southern Rep.
J. Edwin Jones, Sales Mgr.

THE ALLENTOWN BOBBIN WORKS, INC.
431 N. Fourteenth St.
Allentown, Pa. *316*
Suppliers of: Bobbins and spools for textile mills.
Henry W. Mack, Vice-Pres. and Sales Mgr.

ALLIS-CHALMERS MFG. CO.
Box 512
Milwaukee 1, Wis. *709*
Suppliers of: Motors, pumps, V-belt drive equipment, controls, power and distribution transformers, switch gear, units substations.
D. S. Kerr, Mgr. Southeast Region
C. F. O'Riordan, Mgr. Atlanta Dist.
G. H. Hoffman, Mgr. Birmingham Dist.
William Parker, Mgr. Charlotte Dist.
J. W. Roberts, Mgr. Chattanooga Dist.
H. C. Sells, Mgr. Knoxville Br.
H. A. Wilson, Application Engineer
H. A. Reinhard, Supv., Exposition and Shows.
(Please turn the page)

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THE LOUIS ALLIS CO.
427 E. Stewart Street
Milwaukee 7, Wis. *110A*
Suppliers of: Variable speed drives for slashers, finishing operations, etc.; loom motors; self-cleaning textile motors; and all other types of rotating equipment from ½ to 1000 hp.
M. E. Weitekamp, Dist. Mgr. Atlanta
R. J. Overstreet, Dist. Mgr. Charlotte
C. G. Skidmore, Sales Mgr.
M. F. Aynes, Asst. Sales Mgr.
R. C. Wareham, Mgr. Distributor Sales
H. L. Kelley, Mgr. Adjusto-Spede Sales
W. J. Altschwager, Mgr. Select-A-Spede Sales

ALVEY CONVEYOR MFG. CO.
9301 Olive St. Road
St. Louis 24, Mo. *602*
Suppliers of: Package conveying systems.
F. W. Nollman, Vice-Pres.
Curran Easley, Sales Engr.
C. H. Adamson, Asst. Chief Engr.

AMERICAN AIR FILTER CO., INC.
215 Central Avenue
Louisville, Ky. *467*
Suppliers of: All types of air filters, electronic precipitators, and dust control equipment.
H. J. Noles
J. W. May
Kirk Cousart
E. V. Overcash
W. S. Mitchell
T. O. Curlee, Jr.
John M. Rittelmeyer
Don McRae

THE AMERICAN CRAYON CO.
1706 Hayes Avenue
Sandusky, Ohio *332*
Suppliers of: Marking crayons for textiles, lumber, and metal; school art and handcraft supplies.
John Hester, Sales Rep.
Lon Watters, Sales Rep.

AMERICAN LAVA CORP.
219 Kruesi Bldg.
Chattanooga 5, Tenn. *509*
Suppliers of: Thread guides, ceramic specialties.
B. R. Bryant, Asst. Sales Mgr.
J. B. Shacklett, Sales Dept.
Jay Gosnell, Sales Dept.

AMERICAN LUMBER & TREATING CO.
332 South Michigan Ave.
Chicago 4, Illinois *339*
Suppliers of: A treating service to the lumber industry for all lumber products and forest products.
B. H. LeSueur
M. R. Tallon
B. A. Burnside

AMERICAN MOISTENING CO.
260 West Exchange St.
Providence 1, R. I. *125*
Suppliers of: Humidification, evaporative cooling, central station equipment.
H. B. Bradford, Gen. Mgr.
M. H. Irons, Chief Engr.
M. McCall, Charlotte Mgr.
J. E. Boston, Sales Engr.
S. Blanton, Engr.
R. C. Holloway, Engr.
W. A. Mullins, Atlanta Mgr.
J. D. Johnson, Sales Engr.
W. L. Johnson, Sales Engr.
J. H. Waldrip, Sales Engr.
L. D. Terry, Engr.

AMERICAN MONORAIL CO.
13107 Athens Ave.
Cleveland, Ohio *111-112*
Suppliers of: Overhead handling equipment; automatic cleaning systems.
J. P. Lawrence, Pres.
C. de V. Miller, Vice-Pres.
E. H. Doerger, Adv. Mgr.
E. Forrest Kulp, Charlotte Dist. Mgr.
L. R. McEachern, Greenville Dist. Mgr.
H. A. Rehfeld, Atlanta Dist. Mgr.
C. A. Setzer, Sales Engr.
E. G. Peterson, Sales Engr.
J. W. Lamprecht, Sales Engr.

AMERICAN PAPER TUBE CO.
93 Hazel Street
Woonsocket, R. I. *108*
Suppliers of: Paper tubes, quills, and bobbins.
Harald L. Amrhein, Pres.
Robert J. Guerin, Vice-Pres.
Dannitte M. Beattie, Rep.
Frederic L. Chase, Jr., Rep.
Samuel F. Adams, Rep.
George M. Sanford, Jr., Rep.

THE AMERICAN PULLEY CO.
4200 Wissahickon Ave.
Philadelphia, Pa. *212*
Suppliers of: Individual cotton card drives, V-belt sheaves and V-belts, Adjustable-speed sheaves, steel split pulleys, conveyor pulleys, tension-control motor bases, speed reducers (shaft mounted), hi-torque pulleys, shaft collars and hangers, hand trucks, industrial wheels.
James E. Williams, Charlotte Dist. Mgr.
Cliff Hazen, Atlanta Dist. Mgr.
Randolph H. Jackson, Power Transmission Div. Mgr.
Walter L. Connell, Eastern Regional Mgr.
Caleb F. Fox III, Vice-Pres.

AMERICAN SAFETY TABLE CO., INC.
224 Fifth Avenue
New York, N. Y. *230*
Suppliers of: Individual stands for sewing machines; conveyor presses; collar, cuff and flap machines.
Julian C. Frankel, Sales Director
Bob Moreland, Sales Rep.
Buck Bachelor, Sales Rep.
Lane Burris, Sales Rep.

AMERICA'S TEXTILE REPORTER (Publication)
Boston, Mass. *208*

ANDERSON MACHINE SHOP, INC.
Brook Road
Needham Heights, Mass. *306*
Suppliers of: Pacific Evenness Tester.
Angus G. Anderson, Salesman
James G. Anderson, Pres.
Miss Rita Casby, Demonstrator

ANHEUSER-BUSCH, INC.
Corn Products Department
1112 Johnston Building
St. Louis, Mo. *354*
Suppliers of: Starches, dextrines, and gums.
A. C. Mohr, Sales Mgr.
Ken Battenfield, Sales Service
Charles H. Conner, Jr., S.E. Sales Mgr.
Robert Lemieux, Sales Rep.

ARMSTRONG CORK CO.
Liberty Street
Lancaster, Pa. *141*
Suppliers of: Accotex cots and aprons, roll buffing machines, loom supplies, etc.
T. L. Hill, Mgr. Textile Dept.
J. V. Ashley, Southern Dist. Mgr.
H. H. Jordan, Sales Rep.
W. T. Coker, Jr., Sales Rep.
A. M. Ankrom, Sales Rep.
A. C. Littlejohn, Sales Rep.
T. H. Weaver, Sales Rep.
W. A. Simmons, Sales Rep.
F. D. Hamre, Sales Rep.

ARMSTRONG MACHINE WORKS
816 Maple Street
Three Rivers, Mich. *453*
Suppliers of: Steam traps, air traps, pipe line strainers, steam-type humidifiers.
T. M. Reed, Asst. Sales Mgr.
O. E. Ulrich, Factory Rep.
A. T. Shepherd, Dist. Rep.
W. Parke Terry, Salesman
Theo. Abbey, Dist. Rep.

ASHWORTH BROS., INC.
89 Globe Mills Avenue
Fall River, Mass. *123*
Suppliers of: Card clothing and woven wire conveyor belts.
R. C. Ashworth, Jr., Pres.
W. J. Flynn, Jr., Sales & Service
F. L. Armitage, Jr., Sales & Service
A. R. Bechtel, Eng.
J. M. Reed, Southern Mgr.
A. E. Johnston, Jr., Plant Mgr.
A. E. Johnston, Sr., Repairs & Sales
H. Ashworth, Sales & Service
J. E. Seacord, Plant Mgr.
T. F. Hart, Sales & Service
Ray Clary, Sales & Service

ATKINSON, HASERICK & CO.
211 Congress St.
Boston, Mass. *601*
Suppliers of: Textile processing machinery.
F. E. Bozeman, Jr.
Clarence O. Smith
Walter R. Rutley
Walter Stearns
Charles Curran

ATLANTA BRUSH CO.
Box 1358
Atlanta, Ga. *447*
Suppliers of: Textile brushes.
Howard R. Cook, Vice-Pres.
Wm. C. Perkins, Sales Mgr.
G. S. Snow, Sales Rep.
A. W. Dillard, Sales Rep.
J. E. Proctor, Jr., Sales Rep.

ATLANTIC GELATIN
Division General Foods Corporation
Hill Street
Woburn, Mass. *502*
Suppliers of: Textile sizing.
Ira Griffin, Sales Rep.
Ira Griffin, Jr., Sales Rep.

ATLANTA PAPER CO.
950 W. Marietta St. N.W.
Atlanta, Ga. *242*
Suppliers of: Corrugated shipping cases, solid fiber shipping cases, display folding cartons, and textile paper specialties.
Virgil C. Shutze, Vice-Pres. Sales
Harry Olson, Sales Rep.
Whitney Evans, Sales Rep.
Walter M. Wolff, Mgr., Folding Carton Div.
Nat Steadman, Sales Rep.
John Crawford, Sales Rep.
Henry Bauer, Sales Rep.
B. E. Frankel, Adv. Dir.

BACHMANN UXBRIDGE WORSTED CORP.
Uxbridge, Mass. *502*
Suppliers of: Gentle-Air dryers for slashers, automatic tacker, control spray, Easy-Rid textile chalk.
Paul J. Wenzel
Edward S. Creighton

THE BAHNSON CO.
1001 S. Marshall St.
Winston-Salem, N. C. *249*
Suppliers of: Air conditioning and humidification systems, components, and allied equipment.
S. C. Stimson, Sales Engr.
A. E. Thomas, Sales Engr.
A. H. Bahnson, Jr., Pres.

BARBER-COLMAN CO.
115 Loomis St.
Rockford, Ill. *216, 250*
Suppliers of: Automatic spoolers, warpers, warp tying machines, drawing-in machines, electronic humidity controls, etc.

BARCO MANUFACTURING CO.
1801 West Winnemac Ave.
Chicago, Ill. *469*
Suppliers of: Flexible ball joints, swivel joints, revolving joints, and swing joints.
J. O. Heyworth, Sales Mgr.
Frank M. Moore, Development Mgr.
Grady Johnston, Sales Rep.

BARRELED SUNLIGHT PAINT CO.
12 Dudley Street
Providence, R. I. *221B*
Suppliers of: Paints, enamels, and varnishes.
Howard F. Eastwood, Vice-Pres.
C. L. Park
T. C. Roggenkamp
T. J. Edwards, Jr.
J. O. Weddle
P. R. Singletary

THE BASSICK CO.
437 Howard Ave.
Bridgeport, Conn. *409*
Suppliers of: Casters and wheels.

THE GREENVILLE SHOW
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Bassick (continued)
A. J. Israel, Special Rep.
E. P. Ripley, S. E. Mgr.
Hugh Marshal, Factory Sales Rep.

BATSON MFG. CO., INC.
Fair St. Park Place
Greenville, S. C. *335*
Suppliers of: Picker sticks, binders, lease rods, clearer rolls and boards, jack sticks, wood cones, wooden adapters, bobbins, shuttle fur, temple rolls, anchoring pads for looms, and checkstraps.
John P. Batson, Pres.-Mgr.
Mrs. Louis P. Batson, Vice-Pres.
Richard A. Owings, Sales Rep.
David Murphy, Sales Rep.
Louis P. Batson, Jr., Sales Rep.
Miss Louise Kellett, Secretary

Some Highlights of Southern Textile Exposition History

THINKING that newcomers to the industry might be interested in a few of the highlights of Southern Textile Exposition history and that possibly old-timers might derive a great deal of pleasure from perusing these facts, one of TI's editors undertook the task of searching back issues of the magazine for information as to how the show got its start, who was instrumental in its development, how it has grown, its importance to the industry, etc.

As early as January, 1915, reference to the first Exposition, which was held in 1915 and except for years when war or economic conditions prohibited it has been held biennially ever since, appeared in "Cotton" (now TEXTILE INDUSTRIES). It is reprinted here in its entirety because it gives not only the sponsoring organization but also the names of those primarily responsible for the success of that first Greenville Show:

A TEXTILE MACHINERY EXHIBIT

On Saturday evening, December 12th, the Greenville (S. C.) members of the Southern Textile Association, together with the officers and past presidents of that body, attended a called meeting in the Chamber of Commerce rooms at Greenville for the purpose of electing committees to promote the proposed exhibit to be held at Greenville coincident with the November, 1915, convention of the association.

A well-prepared "Dutch" supper was served and many "talks" made by those present on being called upon for an expression by past-president T. B. Wallace, who presided as toastmaster. An epitome of these expressions could be made in one sentence, viz: "It's a good idea and I'll help push."

As a result of the meeting the following committees were elected:

Executive Committee

Robert Bowe, chairman, selling agent, Saco-Lowell Co.
Edwin Howard, southern agent, Mason Machine Works.
J. H. Spencer, southern manager, Barber-Colman Company.
J. E. Sirrine, mill architect and engineer.
G. G. Slaughter, purchasing agent for 33 mills.
Milton G. Smith, southern representative, Jones and Laughlin Steel Co.
James H. Maxwell, southern agent, Keever Starch Company.
A. B. Carter, secretary ex-officio, representing Victor Shaw Traveler Co.

Auxiliary Committee

T. B. Wallace, chairman, superintendent, Dunean Mills.
M. O. Alexander, superintendent, Woodside Cotton Mills.
T. A. Sizemore, superintendent, American Spinning Co.
R. J. Brown, superintendent, Mills Mfg. Co.
H. E. Bates, superintendent, Monaghan Mills.
W. F. Walker, superintendent, Brandon Mills.
W. C. Bobo, superintendent, Judson Mills.

In the July, 1915, issue, page 386, the following announcement appeared:

SOUTHERN TEXTILE EXPOSITION

The committee in charge of the Southern Textile Exposition is now making final plans for the assign-

(Continued on next page)

THE GREENVILLE SHOW

October 6-11

BAUSCH & LOMB OPTICAL CO.
635 St. Paul St.
Rochester, N. Y. *362*
Suppliers of: Microscopes, photographic lenses and projection equipment, metallographs, spectrographs, eye examination equipment, eyewear, binoculars, industrial research and inspection instruments.
C. P. Brownell
J. B. Hickey

BERSWORTH CHEMICAL CO.
Framingham, Mass. *350*
(See Chas. S. Tanner Co.)

BIJUR LUBRICATING CORP.
151 W. Passaic St.
Rochelle Park, N. J. *116*
Suppliers of: Lubricating equipment.
W. O. Wright, Eastern Dist. Sales Mgr.
C. M. Lassiter, Field Engr.
H. J. Auten, Jr., Field Engr.

BINNEY & SMITH CO.
41 East 42nd St.
New York 17, N. Y. *303*
Suppliers of: Marking chalks and crayons.
E. B. Skedden, Crayon Div.
Walter Alexander, Rep.
Wayne King, Rep.
Wm. Perry, Technician

BIRCH BROTHERS, INC.
32 Kent Street
Somerville, Mass. *247*
Suppliers of: Textile dyeing and finishing machines; mill sewing machines.
Harold W. Birch, Mgr.
Clifford W. Birch, Jr., Sales Engr.
Richard Briggs, Sales Engr.
Francis W. Birch, Sales Rep.
John C. Cosby, Southern Rep.

BENJAMIN BOOTH CO.
Allegheny Ave. & Janney St.
Philadelphia 34, Pa. *114*
Suppliers of: Card and napper clothing.
Oliver D. Landis, Representative
Charles G. Stover, Representative
P. W. Coleman, Representative
Fred Antley, Representative
E. A. Snape, Jr., Pres.
Robert Todd, Supt.

BOWEN-HUNTER BOBBIN CO., INC.
East Corinth, Vermont *212*
Suppliers of: Card room, automatic loom, warp and filling bobbins; cones, rolls, and tubes.
Ernest A. Belville, Sales Mgr.

THE BRUSH DEVELOPMENT CO.
3405 Perkins Avenue
Cleveland 14, Ohio *312*
Suppliers of: Uniformity Analyser for sliver, roving, and yarn.
E. M. Hensley, Commercial Engr.

THE BULLARD CLARK COMPANY
E. H. Jacobs Southern Division and
E. H. Jacobs Northern Division
School and Cottage Streets
Danielson, Conn. *443*
Suppliers of: Loom supplies.
Edward Jacobs Bullard, Pres.
William R. Muller, Sales Mgr.
S. Ben Henderson, Service Engr.
Lonnie J. McCall, Service Engr.
Ralph M. Briggs, Jr., Service Engr.
Bill Heacock, Service Engr.
Frank W. Beaver, Service Engr.
L. L. Froneberger, Jr., Service Engr.
Fred B. Pellington, Service Engr.

Bullard Clark (continued)
Jack Normington, Service Engr.
Thomas Soucy, Jr., Service Engr.

BURROUGHS ADDING MACHINE CO.
6071 2nd Blvd.
Detroit, Mich. *340*
Suppliers of: Accounting, adding, bookkeeping, calculating, cash registering, and statistical machines; business machine supplies; microfilming equipment.
E. C. Dawson, Regional Textile Rep.
B. C. Smith, Regional Sales Promotion Rep.
E. H. Dance, Regional Microfilm Rep.
H. A. Mullins, Atlanta Br. Mgr.
J. W. Duggan, Br. Service Mgr.
S. N. Smith, Jr., Sales Rep.
C. W. Boynter, Sales Rep.
C. G. Welborn, Sales Rep.
R. E. Revis, Sales Rep.
W. P. Martin, Sales Rep.
G. A. Martin, Sales Rep.
T. J. Harrison, Sales Rep.
J. B. Baxter, Service Rep.

CAROLINA BEARINGS DIVISION
of Tennessee Bearings, Inc.
231 E. Washington Street
Greensboro, N. C. *439*
Suppliers of: Anti-friction bearings for textile machinery such as cards, drawing and roving frames, looms, etc.
E. F. Brown, Vice-Pres.
G. M. Boullion, Br. Mgr.
D. R. Mason, Sales Engr.
F. M. Roller, Sales Engr.
R. H. Schipper, Store Mgr.
Jim Boling, Salesman

CAROLINA DETERGENTS, INC.
313 N. Main St.
Anderson, S. C. *334*
Suppliers of: Floor finishes, sanitary supplies, sanding machines.
H. O. Comp, Salesman
G. W. Speer, Salesman

CAROLINA SUPPLY COMPANY
35 West Court Street
Greenville, S. C. *229*
Suppliers of: Textile mill supplies.

STE History (continued)

ment of floor space and other details. This exposition will be held at Greenville, November 2nd to 6th; the convention of the Southern Textile Association will be held November 4th to 6th at the same place.

This exposition will be in the center of the southern textile industry, there being 2,500,000 spindles within a radius of 40 miles of Greenville, 7,000,000 spindles within 100 miles and 9,600,000 spindles within 240 miles; this will result in a large proportion of the attendance being practical mill men, and the committee, therefore, hopes to have a large exhibition of specialties, novelties and new devices pertaining to the industry; we believe this idea will appeal to all progressive manufacturers and builders. . . . .

Since the exposition is to be held under the auspices of the Southern Textile Association, the requirement is made that at least one representative of each company exhibiting shall be a member of the association. For the benefit of those who are not members, we will state that the dues are $2.00 per year and $1.00 initiation fee. All those desiring space should write at once to J. H. Spencer, Chairman, Machinery and Supply Committee, Box No. 572, Greenville, S. C. Remember, *first come, first served.*

A preview of the first Show appeared in the October, 1915, issue. Some of the comments on page 519 were:

> The opening of the Southern Textile Exposition on Tuesday morning, November 2nd, will mark an epoch in the textile history of the South . . .
>
> The convention meetings of the [Southern Textile] association will be held in the hall of the Chamber of Commerce Bldg., on Main Street . . .
>
> A number of pleasant surprises are in store for the members and their ladies and arrangements should at once be made to go early and see the whole show. A brass band to furnish music during the exposition week has been promised the Executive Committee by three different mill organizations so that from a musical standpoint everyone should be satisfied. We'll meet you there!

The condensed official program for the five-day event which was destined to be an essential institution in the industry appeared on page 537 of this same issue and is reprinted on the opposite page. It is interesting to

Carolina Supply (continued)

H. W. Harrison, Sales Mgr.
Claiborne Mardre, Special Rep.
Eddie Harrison, Salesman
John Crawford, Salesman
Broadus Elletson, Salesman
Ben Verdin, Salesman
H. L. Stevenson, Salesman
Clyde Shoaf, Salesman
W. A. Wallace, Salesman

A. B. CARTER, INC.
226 Linwood Street
Gastonia, N. C. *121A*
Suppliers of: Boyce weavers' knotters; spinning and twister travelers.

E. L. Ramsey, Vice-Pres.
J. Bynum Carter, Asst. Prod. Mgr.
R. A. Haynes, Special Rep.
J. W. Brown, Engr.
J. K. Davis, Engr.
P. L. Piercy, Engr.
W. L. Rankin, Engr.
Ralph Richie, Engr.

CENTURY ELECTRIC CO.
1806 Pine St.
St. Louis, Mo. *366*
Suppliers of: Motors and generators.

CHARLOTTE MANUFACTURING CO.
1300 South Mint Street
Charlotte, N. C. *142A*
Suppliers of: Card clothing.

R. P. Bullard, Plant Mgr.
A. J. Turner, Asst. Plant Mgr.
A. D. Ennis

CHELSEA FAN & BLOWER CO., INC.
639 South Ave.
Plainfield, N. J. *307*
Suppliers of: Fans, blowers, exhausters, fan blades.

C. C. Niedringhaus, Sales Engr.
E. W. Lohman, Factory Engr. and Vice-Pres.
Henry W. Clover, Dist. Mgr. and Vice-Pres.

CLARK EQUIPMENT CO.
Springfield Place
Battle Creek, Mich. *501*
Suppliers of: Fork lift trucks, industrial towing tractors, powered hand trucks.

W. E. Schirmer, Vice-Pres.
J. R. Titlow, Sales Mgr.
Russell F. Oakes, Mgr. of Advertising and Sales Promotion
H. R. Hansen, Mgr. of Shows and Exhibits
J. J. Shand, Regional Sales Mgr.
L. A. Wilson, Dealer
G. E. Boyce, Dealer
E. M. Sharp, Dealer
Peter Paul Lukas, Dealer
E. V. Wiley, Dealer
B. E. Phillips, Dealer
Don Beck, Dealer
Fred J. Vandemark, Dealer

CLINTON FOODS INC.
Clinton, Iowa *206*
Suppliers of: Textile starches, syrups, sugars.

H. A. Bendixen, Vice-Pres.
Robert C. Rau, Mgr. Southeastern Div.
Grady Gilbert
J. Frank Rogers
Boyce Estes
E. F. Patterson

COLBY COOPERATIVE STARCH CO.
Caribou, Maine *502*
Suppliers of: Sizing materials,
Alfred P. McLean, Gen. Mgr.

COLLINS BROTHERS MACHINE CO.
Pawtucket, R. I. *211A*
Suppliers of: Textile machinery.

THE COLSON CORPORATION
Cedar & Pine Sts.
Elyria, Ohio *470*
Suppliers of: Casters, wheels, and materials handling equipment.

W. C. Shea, Asst. Sales Mgr.
R. S. McCauley, Sales Rep.

CONTAINER CORPORATION OF AMERICA
3300 E. Market St.
Greensboro, N. C. *127A*
Suppliers of: Corrugated and solid fiber shipping containers, folding cartons, and boxboards.

THE GREENVILLE SHOW
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Container Corp. (continued)

T. L. Benson, Gen. Mgr.
Howard Dale
Rita Macintosh, Merchandise Consultant

CONTINENTAL-DIAMOND FIBRE CO.
Chapel Street
Newark, Delaware *106*
Suppliers of: Celoron gear blanks, Dilecto and fibre loom parts, roving cans, trucks, and boxes.

H. M. Dexter, Gen. Sales Mgr.
F. L. Cooper, Asst. Gen. Sales Mgr.
C. L. Simmons, Jr., Southern Dist. Mgr.
A. D. Gray, Sales Rep.
G. W. Vonseth, Sales Rep.

CORN PRODUCTS SALES CO.
17 Battery Place
New York 4, N. Y. *452*
Suppliers of: Dextrines, gums, and starches.

R. H. Scott
A. A. Harden
W. R. Joyner
H. L. Bailey
L. Hawley Kelley
Herman L. Baker
James R. Hill
J. Alden Simpson
Earl G. King
John G. Kulze, Jr.
Gordon E. Wood

---

observe the recreation that was provided for visitors to the Exposition.

CONDENSED OFFICIAL PROGRAM
Tuesday, Nov. 2d

Mill Presidents and Treasurers' Day
9:00 to 11:00 A.M. Grand concert at Exposition Building. First Regiment Band, N.G.S.C., of Williamston, S. C.
9:30 A.M. Official opening of Southern Textile Exposition
Exposition closes each night at 10:00 P.M.
Dancing at Dukeland Park 9:30 P.M. to 12:00 Midnight

Wednesday, Nov. 3rd
"College Day"
9:00 to 10:00 A.M. Grand concert at Exposition Building. First Regiment Band, N.G.S.C., of Williamston, S. C.
9:30 A.M. Opening of Southern Textile Exposition
3:30 P.M. Football Game, Mills Park
9:30 P.M. to 12:00 Midnight. Dances complimentary to exposition visitors.
Cleveland Hall. Music by First Regiment Band, N.G.S.C.
Dukeland Park. Music by Greenville Concert Band.

Thursday, Nov. 4th
"Southern Textile Association Day"
9:00 to 10:00 A.M. Grand concert at Exposition Building. Newberry Cotton Mills' Band
9:30 A.M. Opening of Southern Textile Exposition
12:00 Noon to 1:00 P.M. Opening meeting of Southern Textile Association, Cleveland Hall.
9:30 to 12:00 Midnight. Reception at the Ottaray Hotel to exhibitors, members of Southern Textile Association and visitors. (Informal). Music by Newberry Cotton Mills' Band.
Dancing at Dukeland Park, 9:30 P.M. to 12:00 Midnight

Friday, Nov. 5th
"Southern Textile Association Day"
9:00 to 10:00 A.M. Grand concert at Exposition Building. Newberry Cotton Mills' Band
9:30 A.M. Opening of Southern Textile Exposition
12:00 Noon to 1:00 P.M. Meeting of Southern Textile Association, Cleveland Hall
9:30 to 12:00 Midnight. Dances complimentary to exposition visitors
Cleveland Hall. Music by Newberry Cotton Mills' Band
Dukeland Park. Music by Greenville Concert Band.

Saturday, Nov. 6th
"Southern Textile Association Day"
9:00 to 10:00 A.M. Grand concert at Exposition Building. Newberry Cotton Mills' Band
9:30 A.M. Opening of Southern Textile Exposition
12:00 Noon to 1:00 P.M. Meeting of Southern Textile Association, Cleveland Hall
10:00 P.M. Final closing of the Exposition.

An editorial appearing on page 41 of the December 1915 issue after the first show contained these remarks:

The textile machinery show held in Greenville, S. C., last month is now a matter of recorded his-

(Continued on next page)

THE GREENVILLE SHOW

October 6-11

WILLIAM CRABB & CO.
Box 95
Black Mountain, N. C. *506A*
Suppliers of: Textile lags, slats, pins, doffer plates, and tinter plates.
J. C. Bennett, Pres.
J. C. Bennett, Jr., Vice-Pres.
W. E. MacPherson, Sales Mgr.

CURTIS & MARBLE MACHINE CO.
72 Cambridge Street
Worcester, Mass. *202*
Suppliers of: Preparing, blending and picking machines; cloth room machinery for cottons, rayons, etc.; finishing machinery for woolens, worsteds, carpets, felts, corduroys, and pile fabrics.
Ralph L. Marble, Gen. Supt.
Frank H. MacKay, Field Mgr.
Walter F. Woodward, Southern Rep.

CUTLER-HAMMER, INC.
315 N. 12th St.
Milwaukee 1, Wis. *460*
Suppliers of: Electric motor controls, loom switches, card controllers, motor starters, motor circuit switches, range drive controllers, motor control accessories.
P. S. Jones, Vice-Pres.
F. A. Wright, Sales Mgr.
M. R. Brice, Div. Mgr.

Cutler-Hammer (continued)
G. E. Hunt, Dist. Mgr. Atlanta
J. A. Anderson, Dist. Mgr. Boston
F. A. Miller, Jr., Application Engr.
C. L. Shaw, Application Engr.
C. D. Capelle, Application Engr.
F. L. Sheram, Application Engr.
C. M. Richardson, Application Engr.
R. H. Hanson, Application Engr.
C. L. Wymelenberg, Adv. Asst.

DAILY NEWS RECORD (Publication)
New York, N. Y. *210*

DARNELL CORPORATION LTD.
60 Walker St.
New York, N. Y. *212*
Suppliers of: Specialized casters for the textile industry, neoprene specialties.
Arthur H. Seymour, Eastern Div. Mgr.

THE DAYTON RUBBER CO.
2342 Riverview Ave.
Dayton, Ohio *135*
Suppliers of: Natural and synthetic rubber products for textile machinery.
J. O. Cole, Vice-Pres.
W. L. Morgan, Merchandising Mgr.
J. L. Davis, Supr. Textile Sales
C. J. James, Representative
J. T. Edwardo, Representative
H. M. Manchester, Representative
T. A. Sizemore, Representative
K. K. Karns, Representative
T. W. Meighan, Representative
Emory Howell, Service Engr.
J. M. Hubbard, Regional Mgr.
D. C. Greer, Representative
R. L. Wetzel, Director of Adv.
J. R. Young, Textile Adv. Mgr.

DEUBLIN COMPANY
1155 Waukegan Road
Glenview, Ill. *224A*
Suppliers of: Ball bearing rotating steam, water, and air unions employing the Deublin "Balanced Seal" design for use on dry cans, slashers, and calenders.
L. H. Deubler, Pres.

Deublin (continued)
Richard L. Linn, Vice-Pres.
W. B. McCoy, Sales Rep.

DILLARD PAPER CO.
315 West Washington St.
Greenville, S. C. *102A*
Suppliers of: Paper products for textile mills.
J. L. Griffin, Jr., Mgr. Greenville Div.
L. M. Murphy, Vice-Pres.
L. S. Bloom, Salesman

DIXIE LEATHER CORP.
Albany, Ga. *507*
(See Graton & Knight)

JOSEPH DIXON CRUCIBLE CO.
167 Wayne St.
Jersey City, N. J. *317*
Suppliers of: Pencils, paints, crucibles, graphite lubricants.
L. A. Behrendt, Vice-Pres.
Hill Scoggin, Salesman

DIXON LUBRICATING SADDLE CO.
182 High Street
Bristol, R. I. *401*
Suppliers of: Saddles, stirrups, levers, lever screws, cap bars, and other parts for weighting and guiding top rolls of spinning and roving frames.
Robert Rulon Miller, Vice-Pres.
William R. Potter, Sales Mgr.
Warner H. Tabor, Engr.
R. E. L. Holt, Jr., Sales Rep.
J. W. Davis, Sales Rep.

J. E. DOYLE CO.
1200 W. 6th St.
Cleveland 13, Ohio *504*
Suppliers of: Automatic infrared drying equipment.
Charles C. Doyle, Pres.
James E. Doyle, Sec.
Donald J. Doyle, Vice-Pres.

DRAPER CORPORATION
Hopedale, Mass. *132*
Suppliers of: Looms, loom parts, shuttles, bobbins, spindles, rings,

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STE History (continued)

tory. That it was entirely successful is evident from the oral and printed eulogies eminating from all manner of sources, North and South. That it was fore-ordained to be a big success seems to occur to but few. Such was the case, however, and this predestination is chargeable to cooperation. . . .

The members of the Executive Committee are to be congratulated on the systematic way in which they handled a gigantic problem. The machinery and supply salesmen traveling the South are to be congratulated on the thoroughness with which they spread the news about the big show, as each one was a walking advertisement of the event for months previous to the opening day. In fact, everyone who did his part, no matter how infinitesimal, contributed by his cooperation to the ultimate success that was achieved.

A great deal of this work will never have to be done again. . .

Announcement of the establishment of a permanent textile exposition to be held in Greenville biennially, plans to erect a permanent exposition building, and the incorporation of a company for carrying out these plans came in the April, 1916, issue, page 260:

SOUTHERN TEXTILE EXPOSITION, INC.

J. E. Sirrine, R. F. Bowe, and Milton G. Smith, all of Greenville, S. C., as the committee on organization of the Southern Textile Exposition, Inc., together with W. M. Sherard, Williamston, S. C., Frank E. Heymer, Alexander City, Ala., A. B. Carter, Greenville, S. C., Marshall Dilling, Siluria, Ala., and Robert F. Bowe, Greenville, S. C., the present officers of the Southern Textile Association, as the incorporators, have issued the following prospectus for this new organization that grew out of the big southern machinery show last fall. . . .

Owing to the success of the recent Textile Exposition which was held in Greenville in November, the Southern Textile Association at its last convention authorized the establishment of a permanent textile exposition to be held in Greenville biennially, or as often as the directors may appoint. . . .

The committee immediately began work on the details of the plan. After careful investigation it was decided that as there was no suitable building in Greenville, the committee would erect an exposition building, designing it so as to make it available for other displays and exhibitions. It can also be arranged for other uses so that a reasonable income

bunch builders, etc.
Walter M. Mitchell, Vice-Pres.
Donald Marshall, Div. Mgr.
Wilton Kilgore, Div. Mgr.
Walter M. Brice, Jr., Mgr. Supply Sales
Clare H. Draper, Jr.
B. Z. Ruff
T. Woodrow Taylor
Paul A. Wilson
Floyd B. Elsmore
W. M. Baldwin
E. T. Austin
W. L. Ferguson
Q. S. Halliday
R. T. Osteen
J. S. Bostick
A. H. Raditz
R. M. Morris
J. V. Myers
Jack Thomas
Fred Ridenour
M. E. Hurst
John Smart
Sherwood Merchant
N. W. Bettis

DRONSFIELD BROTHERS LIMITED
Atlas Works, King Street
Oldham, Lancs., England 101
Suppliers of: Card grinding and roll covering machinery.
S. W. Dronsfield, Managing Director
Clifford Bradbury, Export Mgr. and Director

E. I. du PONT de NEMOURS & CO., INC.
Finishes Division
Wilmington, Del. 440
Suppliers of: "Dulux" high hiding mill whites, exterior and interior house paints, machinery finishes, safety color code finishes, and a complete line of maintenance paints.
M. J. Hanger, Trade Sales Mgr.
W. B. Tatum, Maintenance Sales Mgr.
H. L. Norton, Representative
W. K. Sandefur, Representative
B. G. Warwick, Representative

DURANT MANUFACTURING CO.
1929 N. Buffum St.
Milwaukee 1, Wis. 127

Durant (continued)
Suppliers of: Counting and measuring machines for industrial application.
R. B. Winkler, Sales Mgr.
H. V. Barker, Southern Regional Sales Mgr.
Frank Robbins
Herman Bohr
Lewis Mallory
Fred Bowen
L. A Nourie, Eastern Regional Sales Mgr.

EDDA INTERNATIONAL CORP.
468 Fourth Avenue
New York 16, N. Y. 503
Suppliers of: Automatic warp tying machines, reed grinder and brusher, etc.
B. Gudjonsson
H. A. Nagel
H. Lindqvist
Ira L. Griffin
Mickey Dorsey

EDGCOMB STEEL CO.
D St. below Erie Avenue
Philadelphia, Pa. 461
Suppliers of: Metals.
J. B. Owen
P. B. Kline
F. F. Rose
T. A. Wilder
W. P. Holt
A. S. Reed
W. B. Hood
W. R. James

ERIEZ MANUFACTURING CO.
420 Commerce Building
Erie, Pa. 104
Suppliers of: Permanent non-electric magnetic separators.
R. A. Roosevelt, Sales Mgr.
R. C. Hoff, Director of Eng. & Mfg.
L. P. Zumstein, Sales Rep.
B. A. Pietri, Sales Rep.
Henry H. Hersey, Sales Rep.
Dean K. Thomas, Sales Rep.

EXCEL TEXTILE SUPPLY CO.
Lee Avenue
Lincolnton, N. C. 224B
Suppliers of: Materials handling equipment.
N. W. Eurey, Salesman
Paul Eurey, Salesman

THE FAIRBANKS CO.
393 Lafayette Street
New York 3, N. Y. 102
Suppliers of: Casters, hand trucks, wheels, valves, etc.
E. T. Flanagan, Vice-Pres.
James L. Ragland, Salesman
Hugh M. Sims, Salesman
Michael A. Chalverus, Salesman
Charles Freeman, Salesman
Philip M. Fallon, Adv. Mgr.

FAIRBANKS, MORSE & CO.
Fairbanks-Morse Bldg.
Chicago 5, Ill. 706
Suppliers of: Electric motors, pumps, scales, etc.

FAULTLESS CASTER CORP.
1947 Clarence St.
Evansville 7, Ind. 513
Suppliers of: All types of casters and wheels for industrial use.

FIBRE SPECIALTY MFG. CO.
Cedar & Meredith
Kennett Square, Pa. 473
Suppliers of: Roving cans, mill trucks and boxes.
R. G. Henderson, Representative

THE GREENVILLE SHOW
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may be had at all times when the building is not being used for expositions. . . .

The name of the company is "Southern Textile Exposition, Incorporated." It is being incorporated under the laws of South Carolina with its principal office at Greenville.

The capital stock will be $75,000 divided into 1500 shares of par value of $50.00 each. Each share will be entitled to one vote. This stock is offered first to exhibitors and members of the Southern Textile Association at par. . . .

There will be nine directors, three of whom shall be President, Secretary, and Chairman of the Board of Governors of the Southern Textile Association. . .

So it was that the Southern Textile Exposition got its start. A measure of its physical growth is found in the following tabulation of exhibition space sold for each of the Shows as estimated for TEXTILE INDUSTRIES by officials of Textile Hall Corp.:

	Area Sold Square Feet
1st Exposition, November, 1915	3,876
2nd Exposition, December, 1917	22,301
3rd Exposition, May, 1919	12,592
4th Exposition, October, 1920	21,500
5th Exposition, October, 1922	22,458
6th Exposition, October, 1924	41,069
7th Exposition, November, 1926	37,037
8th Exposition, October, 1928	48,973
9th Exposition, October, 1930	41,958
10th Exposition, October, 1932	25,560
11th Exposition, April, 1935	32,918
12th Exposition, April, 1937	38,927
13th Exposition, April, 1939	39,494
14th Exposition, March, 1941	43,233.66
15th Exposition, October, 1948	42,421
16th Exposition, October, 1950	45,042.94
17th Exposition, October, 1952	48,709.05

Abstracts of remarks about other shows down through the years follow:

2nd Southern Textile Exposition
(Dec. 10-15, 1917)
(War time. Textile Hall built.)

The dates set for the Second Southern Textile Exposition at Greenville, S. C., are November 12th to 17th in-

(Continued on next page)

THE GREENVILLE SHOW

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Fibre Specialty (continued)
R. A. Craig, Eastern Sales Mgr.
C. C. Hannum, Sales Engr.
W. M. Harbaugh, Production Mgr.
Frank Lee, Plastic Engr.
Layton S. Allen, Representative
Will-Best Plowden, Representative
Davis E. Williams, Representative
D. T. Sterling, Vice-Pres.
Ralph Woods, Gen. Sales Mgr.

FINNELL SYSTEM, INC.
500 East Street
Elkhart, Ind. *110*
Suppliers of: Floor machines and floor maintenance products.
J. E. Bates, Asst. to Pres.

THE FOXBORO CO.
Foxboro, Mass. *335A*
Suppliers of: Instruments for the measurement and control of process variables in textile manufacture, including flow, liquid level, pressure, humidity, temperature, and pH.
W. W. Barron, Br. Mgr., Greenville
S. C. Alexander, Br. Mgr., Charlotte
H. A. Ruddock, Ind. Engr.
E. W. Prendergast, Br. Mgr., Atlanta
F. H. Leathers, Ind. Engr.
W. H. Ridley, Sales Mgr.
J. W. Gordon, Asst. Sales Mgr.

ERNEST L. FRANKL ASSOCIATES
22 East 40th St.
New York 10, N. Y. *211B*
Suppliers of: Textile processing machinery.
Ernest L. Frankl, Partner
Gunther Frankl, Partner
Max J. Weyl, Engr.

THE FULLER BRUSH CO.
Industrial Division
Fuller Park
Hartford 2, Conn. *441*
Suppliers of: Power driven textile brushes, textile cleaning brushes and brooms, waxes, and polishes.
Frederick E. Bieber, Ind. Div.
John C. Henry, Ind. Rep.
Joseph A. Hash, Ind. Rep.
Edward W. Mason, Ind. Rep.

GASTON COUNTY DYEING MACHINE CO.
Stanley, N. C. *708*
Suppliers of: Beam, package, raw stock, and top bleaching and dyeing equipment; rotary and paddle type hosiery bleaching and dyeing machines; centrifugal, vacuum, and pressure extracting and drying equipment.
G. H. Hacker, Vice-Pres.
R. P. Craig, Vice-Pres.
Gordon Hacker, Mgr.

THE GATES RUBBER CO.
999 So. Broadway
Denver, Colorado *420*
Suppliers of: Lug straps, loop and reversible pickers, check straps, harness straps, take-up roll covering, cone belts, evener belts, V-belt loom drives, and Vulco rope drives for textile machinery.
J. L. Wescott, Dist. Mgr.
J. R. Luzader, Dist. Mgr.
R. L. Waldrop, Dist. Mgr.
R. A. Denslow, Textile Accessories Sales
F. T. Boyce, Field Engr.
P. W. Smith, Field Engr.
F. R. Carson, Field Engr.
H. W. Haynes, Field Engr.

Gates Rubber (continued)
D. H. T. Jewett, Field Engr.
A. P. Fore, Field Engr.
V. G. Nelson, Field Engr.
R. Y. McCarter, Field Engr.

P. C. GAULT CO.
2 Aberdeen Drive
Greenville, S. C. *320*
Suppliers of: Inter-communications equipment.
P. C. Gault, Pres.
J. C. Digh, Jr., Br. Mgr.
H. D. Sweetser, Sales Engr.
J. E. Marshall, Service Mgr.
J. W. Welsh
C. H. George
Hugh Tulane, Kellogg Dealer Sales Supv.
Carl Megelin, Mgr. Kellogg Special Products Dept.

GENERAL ELECTRIC CO.
1 River Road
Schenectady, N. Y. *117*
Suppliers of: A complete line of electrical equipment for the textile industry.
J. W. Holt
R. H. Winter
R. R. Prechter
R. E. Parker
K. R. Ross
A. W. Eaton
C. L. Hamm
R. H. Jackson
R. S. Paden
R. B. Flowers
J. D. Wallace
R. B. Horning
W. L. Richbourg
M. D. Harris
J. H. Fowler
H. B. Tomlin

GILMAN PAINT & VARNISH CO.
216 W. Eighth St.
Chattanooga, Tenn. *431*
Suppliers of: Complete line of paints, varnishes, enamels, lacquers, etc., for the textile industry; also brushes, abrasives, wallpaper, and equipment for painting.

STE History (continued)

clusive. The new building is well under way, the heavy concrete foundations and the concrete heating and ventilating ducts having all been placed. The work on the reinforced concrete columns is progressing, and the material for the entire building is arriving daily. While the dates set are somewhat tentative owing to the heavy load on transportation facilities and the unprecedented labor conditions caused by the war, still these are the best estimates of those in charge of the work, and it is very doubtful if any unforseen occurrence which may arise will delay the opening of the exposition more than two weeks at the most . . .

"Cotton" for August, 1917, *page* 601

Following are the officers and directors of the (second) exposition:

Officers—President, B. E. Greer, Greenville, S. C.; Vice president, Ellison A. Smythe, Greenville, S. C.; treasurer, Edwin Howard, Greenville, S. C.; secretary, G. G. Slaughter, Greenville, S. C.

Directors—W. P. Anderson, A. B. Carter, F. Gordon Cobb, B. E. Greer, Jno. A. McPherson, J. E. Sirrine and T. B. Wallace, all of Greenville, S. C.; Z. F. Wright, Newberry, S C., and J. M. Davis, Newberry, S. C.

"Cotton" for August, 1917, *page* 605

The words exposition or show convey to most people the thought that they are going to see something merely for pleasure, but the Textile Exposition has a far deeper meaning to overseers and superintendents because we know we are going to have the opportunity of getting several years schooling, so to speak, crowded into a few days.

When you realize that an overseer or superintendent will get more information about cotton mill machinery at this show than he could possibly get in several months of travel and at an expense of several hundred dollars, you too will say it will be a liberal education to attend.

Perhaps some mill president may reason that as his mill has been built some years and his machinery is considered old, it would not do his overseers or superintendent any good to visit the show except as a pleasure trip but, if he would only take the trouble to look into the matter he would find that more changes have been made in old machinery by overseers and superintendents seeing the improvements on new machinery than from any other source. . .

In my opinion there is a promising future for the Southern Textile Exposition, and, I believe, it will con-

Gilman Paint (continued)
E. L. Gott, Pres.
Raymond C. Adams, Technical Director
L. C. Teeters, Textile Rep.
R. B. Olney, Owner, Olney Paint Co.
W. P. Dobson, Textile Rep.
J. M. Isom, Textile Rep.
C. H. Dodson, Textile Rep.

L. H. GILMER CO.
Keystone St., Tacony
Philadelphia 35, Pa. 212
Suppliers of: Endless cord spinner belts, nylon loom strapping, shock pad machinery mounts, V-belts, "Timing" belts.
W. E. Combs
W. A. Lindfors
R. Y. Case
J. W. Pitt
W. W. Conard

GOSSETT MACHINE WORKS
Gastonia, N. C. 226
Suppliers of: Textile machine parts including four-roll drawing conversion.

RALPH GOSSETT & CO.
204 Crawford Bldg.
Greenville, S. C. 703
Suppliers of: Textile supplies and machinery, including spindle oiling machines, bobbins, and Tension-Rite instrument for thread friction testing.
Ralph Gossett, Jr.
R. L. Carroll, Salesman
R. T. Hamner, Salesman

GRATON & KNIGHT CO.
342 Franklin St.
Worcester 4, Mass. 507
Suppliers of: Leather pickers, check straps, lug straps, lug hold-up straps, harness leathers, binder and box plate leathers, heel and jack straps, spindle bumper straps, comb and gill box aprons, rub roll aprons, condenser tapes, leather belting, belt dressing.

Graton & Knight (continued)
J. Henrikson
W. F. MacAnulty
D. N. Patterson
E. Pickett
J. L. Parker, Adv. Mgr.

GREENVILLE BELTING CO.
Division of Schmidt Mfg. Co.
206 Emile Ave.
Greenville, S. C. 263
Suppliers of: Loom supplies and weave room equipment.
Clayton E. Schmidt, Gen. Sales Mgr.
Ralph F. Schmidt, Mgr. Greenville Belting Div.
Lee Shook, Sales Rep.
Ken Walker, Sales Mgr. Tatem Mfg. Co.
Karl Brenna, Textile Engr. Grob Corp.

GREENVILLE TEXTILE SUPPLY CO.
504 Rhett Street
Greenville, S. C. 212
Suppliers of: Textile mill equipment and supplies.

IRA L. GRIFFIN & SON
P. O. Box 1576
Charlotte, N. C. 502
Suppliers of: Textile sizing materials, slashing equipment, warp tying machines, etc.
Ira L. Griffin, Sr., Partner
Ira L. Griffin, Jr., Partner
John Tillett, Jr.
Mason H. Dorsey

GULF OIL CORP.
Gulf Building
Pittsburgh 30, Pa. 211
Suppliers of: Textile mill lubricants.
J. H. Hooten, Senior Staff Engr.
O. K. Weatherwax, Staff Engr.
A. M. Wright, Staff Engr.
L. A. Bethea, Ind. Sales Engr.
A. J. Borders, Ind. Sales Engr.
G. W. Burkhalter, Ind. Sales Engr.
R. G. Burkhalter, Ind. Sales Engr.
S. W. Dance, Ind. Sales Engr.
W. A. Dotterer, Ind. Sales Engr.

THE GREENVILLE SHOW
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Gulf Oil (continued)
E. T. Hughes, Ind. Sales Engr.
G. P. King, Jr., Ind. Sales Engr.
S. E. Owen, Jr., Ind. Sales Engr.
R. G. Peeples, Ind. Sales Engr.
R. D. Reamer, Ind. Sales Engr.
C. E. Reese, Ind. Sales Engr.
R. M. Thibedeau, Ind. Sales Engr.
C. T. Timmons, Ind. Sales Engr.
R. L. Winchell, Ind. Sales Engr.

HARALSON SALES CO.
619 S. 11th St.
Birmingham 5, Ala. 361
Suppliers of: Stanley magic door controls.
Jonathan Haralson, Partner
F. M. Hatcher, Mgr. Atlanta Office
C. K. Nichols, Adv. Mgr. The Stanley Works
J. R. Tlanda, Chief Service Engr., The Stanley Works

HAYES INDUSTRIES, INC.
Fern & Wildwood Ave.
Jackson, Mich. 227
Suppliers of: Section beams, loom beams, tricot beams.
Wm. H. Maxson, Sales Mgr.
R. E. L. Holt, Jr., Southern Rep.
Floyd New, Southern Rep.
David Sellars, Southern Rep.

HERR MANUFACTURING CO., INC.
318 Franklin St.
Buffalo 2, N. Y. 262

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tribute largely to the rapid growth of the South's greatest industry.

F. Gordon Cobb, Superintendent, F. W. Poe Mfg. Co.
"Cotton" for November, 1917, page 16

. . . The two years which have elapsed since the first exposition have worked many changes. The country is now upon a war footing, and with war revenue taxes to be paid and liberty bonds to be purchased, it is absolutely necessary for every manufacturing plant to be operated upon the basis of its fullest efficiency. In many cases the personnel of the mills have changed. In a great many cases improvements have been made in those "dividend payers" that were shown two years ago. In other instances new "dividend payers" have been devised and placed on the market. It will be a liberal education for any mill man to visit this exposition in December and arrangements should be made to stay at least two days at the show. . . . .

"Cotton" for November, 1917, page 17

. . . Owing to the inability of the contractor to finish the building in time for the original date set in November (Nov. 12-17), the weather man turned a cold shoulder and not only gave below freezing weather to Greenville for several days prior to the opening of the show, but also on Tuesday he showed the northern visitors that the South really could have a snowstorm, and about four and a half inches of the fleecy white substance was scattered over Greenville and remained throughout the week.

The Exposition authorities report a recorded attendance of something like 36,000 people. Mill men were present all the way from Maine to Texas and the majority of exhibitors reported satisfactory interviews and many good prospects. . . .

"Cotton" for January, 1918, page 183

3rd Southern Textile Exposition
(May 5-10, 1919)

The attendance at the Third Southern Textile Exposition, which was held at the Textile Hall in Greenville on May 5-10 inclusive, was fully up to the expectations of its promoters and directors. The absence of heavy machinery exhibits was amply compensated by the greatly increased number of specialties and many of the specialty men present stated at the close of the week that the show

(Continued on next page)

THE GREENVILLE SHOW

October 6-11

Herr Manufacturing (continued)

Suppliers of: Specialties for the textile industries, including conical spinning and twister rings and flyers.

Hyatt B. Atwood, Pres.
Charles M. Kitzmiller, Technical Engr.

HOLLISTER-MORELAND CO., INC.
Montgomery Bldg.
Spartanburg, S. C. 230
Suppliers of: Sewing machines and tables, cloth cutting machines, cloth spreaders, trimmers, round belting and belt hooks, cutting tables, steel shelving, and illuminating equipment.

R. B. Moreland, Pres.
O. S. Bachelor, Vice-Pres.
J. B. Moreland, Secretary
Lane C. Burris
Julian C. Frankel, American Safety Table Co.
H. F. Stolzenberg, Merrow Machine Co.
Harry Duke, Dinsmore Mfg. Co.

R. E. L. HOLT, JR., AND ASSOCIATES, INC.
P. O. Box 1474
Greensboro, N. C. 227
Suppliers of: Loom supplies, belting, loom beams, section beams, tricot beams, thread guides, bobbins, spinning tapes, yarn and hosiery conditioning machines.

R. E. L. Holt, Jr., Pres.
David R. Sellars, Salesman
Floyd A. New, Salesman
James R. Smith, Salesman
J. B. Adams, Salesman

HOPE WEBBING COMPANY, INC.
1005 Main Street
Pawtucket, R. I. 212
Suppliers of: Spinning and twister tapes.

Donald Campbell, Sales Engr.

HOWARD BROS. MFG. CO.
44-46 Vine St.
Worcester, Mass. 245
Suppliers of: Card clothing and hand stripping cards.

Harry C. Coley, Pres.
Neal A. Mitchell, Gen. Mgr.
Carl A. Moore
Jack S. Lawrence
Harold S. Bolger
Charles A. Haynes, Jr.

THE HUBINGER CO.
Keokuk, Iowa 502
Suppliers of: Corn starches of all kinds for cotton warps; Waxy R Gum No. 10 for spun rayon and rayon blends.

A. M. Robinson, Vice-Pres.
J. Max Seitz, Director of Research
W. B. Strickland, Special Rep.

HUNT LOOM & MACHINE WORKS, INC.
200 Academy Street
Greenville, S. C. 129
Suppliers of: Single shuttle, automatic looms and loom parts.

R. R. Hood, Sales Rep.
Jack Federline, Sales Rep.
J. C. Galloway, Sales Rep.
Haley Ector, Sales Rep.
C. G. Stover, Sales Rep.
W. E. Henderson, Sec.-Treas.

HUNTINGTON & GUERRY ELECTRIC CO.
230 Buist Ave.
Greenville, S. C. 214
Suppliers of: Electrical contractors.

HYSTER COMPANY
1003 Myers Street
Danville, Ill. 419
Suppliers of: Industrial trucks; materials handling equipment.

Jack A. Cairns, Dist. Mgr.
R. F. Moody, Eastern Div. Sales
George Wrenn, Dealer Rep.
Jim Hubbard, Dealer Rep.
Paul E. Wrenn, Dealer Rep.
J. Preston Wrenn, Dealer Rep.

IDEAL INDUSTRIES, INC.
Gastonia Highway
Bessemer City, N. C. 261
Suppliers of: Ball bearing drawing changeover and repair; plastic gearing.

Arnold W. Kincaid, Pres.
E. B. Robinson, Vice-Pres.
Joe R. Whitehurst, Vice-Pres.
C. Jack Costner, Production Mgr.
A. S. Roebuck, Salesman
E. F. Robinson, Salesman
F. B. McDonald, Sales Engr.

THE INDUSTRIAL DRYER CORP.
432 Fairfield Ave.
Stamford, Conn. 227
Suppliers of: Conditioners for synthetic, woolen, worsted and cotton yarns and for hosiery.

R. E. L. Holt, Jr., Southern Rep.
P. H. Friend, Salesman
F. W. Caesar, Vice-Pres.

INTERNATIONAL BUSINESS MACHINES CORP.
590 Madison Avenue
New York, N. Y. 449
Suppliers of: Electronic and electric punched card accounting machines, electric typewriters and electric clock, time recording, and time signaling systems.

T. E. Clemmons, Dist. Mgr.
J. G. Darracott, Mgr. Greenville
M. J. Gorrie, Special Rep.
N. M. Schwaner, Special Textile Rep.

JENKINS BROS.
100 Park Ave.
New York, N. Y. 435

STE History (continued)

had been, from their standpoint, one of the most successful expositions they had ever entered. Comment was also made by many visiting mill men that they were much more interested in the specialty proposition at the present time than they were in what might be called the staple machinery of cotton manufacture. . . .

"Cotton" for June, 1919, page 473

4th Southern Textile Exposition
(October 18-23, 1920)

. . . predominant factor of the occasion was the general feeling of optimism which prevailed among the exhibitors, and every one was at his best in exhibiting and demonstrating his particular product. Anyone who entered Textile Hall with the feeling that the prevalent depression was to continue and that the textile industry and the country as a whole were certain to undergo an inevitable panic, had but to mix and mingle with those in the Hall to come away with a much more hopeful view of the situation. . . .

. . . Every evening of the week there was conducted in Cleveland Hall a dance from 10 to 12 o'clock. The music for these occasions was furnished by the Garber-Davis Orchestra of five pieces, imported from Washington, which also gave concerts at Textile Hall every afternoon and evening. Some jazz orchestra, that was! . . .

"Cotton" for November, 1920, page 26

5th Southern Textile Exposition
(October 19-25, 1922)

. . . the show will begin on Thursday morning, being open on Friday and Saturday, but closing Sunday, the 22nd, to give exhibitors and visitors a day of rest, and re-opening on Monday morning and continuing until Wednesday night. . . .

"Cotton" for September, 1922, page 838

. . . feature that received favorable comment was the arrangement of the dates for the Show this year, allowing the former continuous stretch of activity to be broken this year by Sunday as a day of rest. Various parties were gotten together for sight-seeing trips over the week-end, while others utilized the breathing spell for the purpose

Jenkins Bros. (continued)
Suppliers of: Valves, packings, etc.

THE JOHNSON CORPORATION
815 Wood Street
Three Rivers, Mich. 455
Suppliers of: Rotary pressure joints for slashers, dry cans, etc.
Ralph W. Gotschall, Regional Sales Mgr.
Wm. T. Harding, Jr., Dist. Rep.
T. H. Abbey, Dist. Rep.

KEARNY MANUFACTURING CO., INC.
681 Schuyler
Kearny, N. J. 515
Suppliers of: Yarn conditioning machinery and liquids; testing equipment; psychrometers, textile mill supplies.
C. F. Dulken, Sr., Pres.
E. W. Ercklentz, Vice-Pres.
H. E. Kresse, Mgr.
H. J. Schmitz, Engr.
C. C. Withington
Harold Mahon
W. P. Russell

THE KEEVER STARCH CO.
1200 S. C. National Bank Bldg.
Greenville, S. C. 407
Suppliers of: Textile starches.
James F. Kurtz, Vice-Pres.
Charles C. Switzer, Div. Mgr.
L. J. Castile, Representative
F. M. Wallace, Representative
E. Hays Reynolds, Representative
R. E. DeLapp, Jr., Representative

KEYSTONE LUBRICATING CO.
21st & Clearfield Streets
Philadelphia, Pa. 402
Suppliers of: Lubricants for textile machinery, lubricating devices.
Albert Hobbie, Sales Promotion Dept.
Vic Berguson, Exec. Rep.
R. J. McGee, Factory Rep.
R. M. Goss, Factory Rep.

WALTER KIDDE & COMPANY, INC.
675 Main Street
Belleville 9, N. J. 209

Walter Kidde (continued)
Suppliers of: Tension devices for textile processing; fire extinguishers.
D. Kroll
J. Flatley
J. Warwick
R. Breen
F. Muller

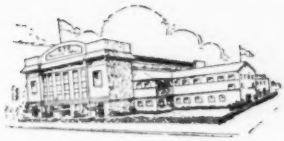
KIRKMAN & DIXON MACHINERY CO.
208 Oak Avenue
Greenwood, S. C. 239
Suppliers of: Waste machines, hopper feeders, and other parts for opening and picking equipment.
Ira W. Dixon, Pres.
W. J. Langley, Salesman
C. M. Dixon, Production Dept.
W. C. Dixon, Plant Supt.

LAMBETH ROPE CORP.
Kings Mountain, N. C. 221A
Suppliers of: Spinning, twister, and spooler tapes, mule ropes and bands, lug straps, etc.
Julian P. O'Leary
Stuart E. Campbell
Frank Burke

W. T. LANE & BROS., INC.
Ft. Prospect St.
Poughkeepsie, N. Y. 212
Suppliers of: Canvas doff baskets, all-steel doff trucks, canvas roving trucks, canvas floor trucks, casters.
R. T. Lane, Vice-Pres.
J. M. Baker, Southern Rep.

G. F. LEAGUE MFG. CO.
Bates Street, Box 125
Greenville, S. C. 302
Suppliers of: Precision textile wood parts for every phase of manufacturing, opening room through finishing.
G. Frank League, Gen. Mgr.

LESTERSHIRE SPOOL & MFG. CO.
140 Baldwin Street
Johnson City, N. Y. 212
Suppliers of: Twister spools or bobbins for cotton, worsted, wool-



THE GREENVILLE SHOW
October 6-11

en, nylon, rayon, and other synthetic yarn twisting.
D. T. Sterling, Vice-Pres.
J. H. Windle, Jr., Sales Mgr.
C. E. Lathrop, N. E. Sales
W. H. Hobbs, Middle Atlantic Sales

LINCOLN ENGINEERING COMPANY
5701 Natural Bridge Ave.
St. Louis, Mo. 510
Suppliers of: Complete line of lubricant application equipment.
A. P. Fox, Pres.
J. E. Renner, Gen. Sales Mgr.
T. V. Picraux, Ind. Sales Mgr.
Al Woodland, Ind. Engr.
R. E. Crean, Ind. Engr.
R. J. Gabrielson, Factory Rep.
J. B. Benskin, Factory Rep.

LINK-BELT CO.
301 W. Pershing Road
Chicago, Ill. 218
Suppliers of: Power transmission equipment, including ball and roller bearings, silent chain drives for cards, etc., and slasher drives.
William J. Nighbert, Mgr. Dist. Sales

H. F. LIVERMORE CORP.
20 Linden Street
Allston 34, Mass. 109A
Suppliers of: Loom repair parts

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for which the day was intended—rest.

"Cotton" for September, 1922, page 20

6th Southern Textile Exposition
(October 20-25, 1924)

(Permanent steel annex was built for this show.)

. . . So great was the demand for space at this year's exhibition that it became necessary, months beforehand, to provide an annex to house the overflow of exhibits even after the commodious Hall itself had been filled to the limit. . . .

"Cotton" for October, 1924, page 1225

. . . Show Week in Greenville has established itself as an institution in the southern textile industry, an event anticipated, and one affording a full week of pleasure and profit. . . .

"Cotton" for October, 1924, page 1226

7th Southern Textile Exposition
(November 1-6, 1926)

. . . W. G. Sirrine, president of the exposition company, was the recipient of universal congratulation upon the manner in which the show was operated. These honors were shared by Earle Mauldin, manager of the show, who, because of his successful management of previous expositions, was returned to Greenville to handle the exposition this year. Miss Bertha M. Green, secretary of the exposition, was the efficient assistant of Mr. Mauldin in contacts with the exhibitors. . . .

"Cotton" for December, 1926, page 116

8th Southern Textile Exposition
(October 15-20, 1928)

(Good times. Temporary annex in front of steel annex erected for this show.)

. . . The main building and the permanent annex, as well as the temporary structure erected to provide for the excess of exhibits for this show, all filled to the last available space, demonstrated forcibly the value exhibitors find in the Exposition; and the throngs of mill men which milled along the isles, from the very opening of the Show to its conclusion on Saturday, indicated the keen interest of these men in the equipment and products displayed. . . .

(Continued on next page)

THE GREENVILLE SHOW

October 6-11

and textile specialties.

Ernest W. Fanning, Salesman
Charles E. Moore, Salesman
William T. Jordan, Salesman
Sherwood O. Dodge, Chief Engr.
George Urquhart, Design Engr.

THE LOUDEN MACHINERY CO.
607 Broadway
Fairfield, Iowa 603
Suppliers of: Monorail, overhead cranes, ceiling cleaning equipment.

Wilbur Mayer, Sales Mgr.
A. M. Rinehart, Asst. Sales Mgr.
Curran Easley, Representative

EDWARD J. McBRIDE CO., INC.
Adams Avenue & Leiper St.
Philadelphia 24, Pa. 237
Suppliers of: High speed creels and warp beams.

Edward J. McBride, Pres.
Walter F. Kraemer, Sales Engr.

MACBETH CORPORATION
P. O. Box 950
Newburgh, N. Y. 145
Suppliers of: Cotton Examolite, color matching skylights, Macbeth Ansco color densitometer, Nickerson-Hunter cotton colorimeter, pH meters.

Norman Macbeth, Pres.
Warren B. Reese, Sales Mgr.
E. F. Slaughter, Sales Rep.

Macbeth Corp. (continued)
J. F. Slaughter, Sales Rep.
A. P. Sommer, Sales Rep.

MANTON GAULIN MFG. CO., INC.
44 Garden Street
Everett 49, Mass. 135
Suppliers of: Textile homogenizers for the preparation of warp size.

D. G. Colony, Pres.
G. W. Eldridge, Ind. Sales Mgr.
W. A. Hewitt, Southern Textile Sales Mgr.
J. J. Dwyer, Salesman

MARCHANT CALCULATING MACHINES CO.
1475 Powell St.
Oakland, Calif. 347
Suppliers of: Calculating machines.

W. J. Koepenick, Agency Mgr., Greenville
F. W. Grotophorst, Agency Mgr., Charlotte
R. C. Windsor, Agency Mgr., Greensboro
J. S. Fulmer, Sales Rep.
G. F. Hartwell, Sales Rep.

MARKEM MACHINE CO.
150 Congress
Keene, N. H. 235
Suppliers of: Industrial marking machines.

Harold D. Milton, Field Sales Mgr.
Charles Cheeseman, Technical Rep.
Harris Clark, Technical Rep.
Earle Quimby, Jr., Technical Rep.

THE MARQUETTE METAL PRODUCTS CO.
1145 Galewood Drive
Cleveland 10, Ohio 260
Suppliers of: Roller bearing spindles.

C. E. Miller, Sales Mgr.
J. J. Hallissy, Representative
C. H. White, Representative
W. P. Russell, Representative
W. H. King, Representative

MARSH STENCIL MACHINE CO.
700 E. B. St.
Belleville, Ill. 325

Marsh Stencil (continued)
Suppliers of: Stencil cutting machines, tape sealing machines, stencil inks, brushes, marking supplies.

E. J. Marsh, Secretary
Herbert Hempel, Vice-Pres.
E. H. Krause, Sales Engr.
J. A. Pierce, Representative
Jack Shelton, Representative

MARSHALL & WILLIAMS CORP.
46 Baker St.
Providence, R. I. 231
Suppliers of: Tenter frames, tenter clips, positive overfeeds, batchers, plaiters, and guiders.

Richmond Viall, Pres.
John C. Nash, Sales Mgr.
Fred H. Land, Southern Mgr.
J. B. Montgomery, Sales Rep.

MASURY-YOUNG CO.
76 Roland Street
Boston 29, Mass. 337
Suppliers of: Floor surfacing materials, cleaners, and other floor maintenance supplies.

Louis W. Dee, Gen. Sales Mgr.
Robert D. Lane, Div. Mgr.
James A. Watson, Div. Mgr.
L. L. Gallemore, Dist. Mgr.

MEESE, INC.
1936 Harris Avenue
Madison, Ind. 314
Suppliers of: Canvas baskets, hampers and trucks.

E. W. Meese, Sales Mgr.
Wm. E. Petway, Salesman

THE MERROW MACHINE CO.
2801 Laurel St.
Hartford 6, Conn. 230
(See Hollister-Moreland Co.)

THE MILLER CO.
99 Center Street
Meriden, Conn. 465
Suppliers of: Lighting equipment.

C. H. Phillips, Field Engr.
Crawford Maddox, Field Engr.
J. Fowler, Field Engr.
H. B. Connell, Field Engr.
F. Stewart, Field Engr.

STE History (continued)

. . . The Greenville show this year presented, for the first time, what is known as "one-process picking," and the fact that this type of equipment had never been exhibited at a previous Exposition, drew the mill men to the several exhibits of this character located on the second floor of the Exposition building. . . .

"Cotton" for November, 1928 page 12-R

. . . next place must be given to rayon and its influence in connection with the Exposition. In practically every weaving exhibit this newest of textile fibers was being utilized in the production of fancy-designed fabrics. . . .

"Cotton" for November, 1928 page 11-R

9th Southern Textile Exposition
(October 20-25, 1930)

. . . Many comments were heard as to the appropriateness of the Exposition's being held just at this time, with conditions showing a gradual but certain improvement, since it offered a medium of contact between the mill men attending, as well as with the exhibitors, for the purpose of clearing the decks for action. . . .

. . . It has become a policy among some of the larger preparatory and spinning machinery people to exhibit at alternate shows. . . .

"Cotton" for November, 1930, page 5-R

10th Southern Textile Exposition
(October 17-22, 1932)

. . . Although a period of depressed business conditions which had prevailed practically since the 1930 exhibition had naturally resulted in a decreased number of exhibitors, the character of the show was entirely satisfactory and worthy of the unprecedented attendance of mill men who displayed a surprisingly satisfactory interest in the equipment, machinery, materials, and services which comprised the exhibition. . . .

. . . the Exposition management introduced an interesting innovation—a cotton style show—conducted by Miss Catherine E. Cleveland, of The Cotton-Textile Institute. . .

. . . A striking weaving development shown was a simple

(Continued on page 313)

The Miller Co. (continued)
A. Martinson, Field Engr.
L. Kline, Field Engr.
F. W. Ogden, Sales Promotion Mgr.

A. MILNE & CO.
735 Spring St. N.W.
Atlanta, Ga. *326*
Suppliers of: Tool and high speed steel, graphic steels, cold drawn special steels, and special sections.
H. F. Dicks, Southern States Mgr.
F. J. Grant, New England Mgr.
O. A. Pfouts, Timken Steel & Tube Div. Engr.
C. C. Pinkney, Special Rep.

MINNEAPOLIS-HONEYWELL REGULATOR CO.
Industrial Division
Wayne & Windrim Aves.
Philadelphia 44, Pa. *411*
Suppliers of: Instruments and controls for textile industry processes.
J. D. MacNamara, Textile Industry Mgr.
W. T. Rockhill, Exhibit Mgr.
J. E. MacConville, Regional Ind. Sales Mgr.
A. R. King, Sales Engr.
A. H. Freilich, Sales Engr.
D. B. Daubert, Textile Industry Engr.
R. T. Waits, Sales Engr.
C. O. McAtee, Sales Engr.
L. F. Lawrence, Dist. Mgr.
L. G. Gercken, Sales Engr.
J. T. Emerson, Sales Engr.
J. H. Morrison, Sales Engr.
L. E. Kennedy Sales Engr.
R. D. Clarke, Sales Engr.

MINNESOTA MINING AND MANUFACTURING CO.
900 Fauquier
St. Paul 6, Minn. *445*
Suppliers of: Textile tapes, pressure-sensitive tapes and dispensers, non-slip surfacing.
F. M. Andrews, Adv. Supv.
R. C. Crandlemire, Salesman
J. V. Garrett, Salesman
F. L. Hayes, Sales Supv.
G. G. Nevius, Product Merchandiser
W. F. Rhodes, Salesman
R. D. Scattergood, Salesman
J. H. Mellon, Salesman

MITCHELL-BISSELL CO.
Brunswick & Heil Avenues
Trenton, N. J. *227*
Suppliers of: Porcelain and metal thread guides for textile machinery.
J. A. Williams, Pres.
W. H. Birchenall, Vice-Pres.
(See R. E. L. Holt, Jr. & Associates, Inc.)

MOFFATT BEARINGS CO.
1640 Fairmount Avenue
Philadelphia, Pa. *240*
Suppliers of: All types of ball, roller, thrust, and needle bearings; also ball and roller bearing units, such as pillow blocks, flange units, special textile machine units, etc.
O. S. Livingston, Pres.
D. G. Hornbaker, Vice-Pres.
R. W. Vogelsberg, Atlanta Br. Mgr.
R. L. White, Charlotte Br. Mgr.

Moffatt Bearings (continued)
S. D. Zeanah, Birmingham Br. Mgr.
W. B. Osborne, Richmond Br. Mgr.
Patrick Matthews, Charlotte Sales
Benj. M. Ivey, Charlotte Sales

MONA INDUSTRIES, INC.
65-75 East 23rd Street
Paterson, N. J. *442*
Suppliers of: Yarn conditioning machinery and chemicals, moisture meters, and a complete line of textile finishing chemicals.
Dr. K. Heyman, Technical Director
R. H. Sommer, Export Mgr.
W. O. Schlimbach, Sales Mgr.

MONROE CALCULATING MACHINE CO., INC.
555 Mitchell Street
Orange, N. J. *343*
Suppliers of: Adding-calculators, adding machines, accounting and bookkeeping machines.
B. T. Burry, Greenville Br. Mgr.

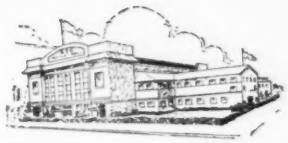
MORTON SALT CO.
120 South La Salle Street
Chicago, Ill. *512*
Suppliers of: Salt.
John C. Drake, Brinemaker Specialist
John M. Culp, Brinemaker Specialist
T. E. Driskell, Brinemaker Specialist

MOUNT HOPE MACHINERY CO.
42 Adams St.
Taunton, Mass. *145*
Suppliers of: Cloth handling devices, including slack selvage eliminator, high speed continuous roll feed, cog type tension bars, open width tension device, precision guiders with remotely controlled denippers, tenter rail feeder, adjustable bow expander, stainless steel poteyes, detwister switch and selvage uncurlers.
J. D. Robertson, Pres.
John B. Hammett, Sales Mgr.
Walter P. Murray, Chief Engr.
E. F. Slaughter, Southern Rep.
J. Fred Slaughter, Southern Rep.
A. P. Sommer, Southern Rep.
Mrs. V. H. Slaughter, Southern Rep.

NATIONAL CASH REGISTER CO.
Dayton, Ohio *363*
Suppliers of: Accounting, payroll, analysis, and adding machines.

NATIONAL PLASTICS, INC.
2326-2330 McCalla Avenue
Knoxville, Tenn. *110B*
Suppliers of: Plastic textile machinery parts, such as sheaves, idlers, and twisters for spinning and weaving, cloth roll bearings, parallel blocks, binder bushings and binder bushing shims, etc.
Charles L. Yeomans, Vice-Pres.
Chris. Van Deventer, III, Pres.
C. E. Morrison, Emmons Loom Harness Co.
Tom Emmons, Emmons Loom Harness Co.
Arthur W. Harris, Harris Mfg. Co.

NATIONAL STARCH PRODUCTS, INC.
270 Madison Ave.
New York 16, N. Y. *437*
Suppliers of: Starches, dextrines, adhesives, resins.



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National Starch (continued)
F. Greenwall, Pres.
D. Pascal, Vice-Pres.
J. F. Fitzgerald, Starch Sales Mgr.
F. N. Eastwood
H. M. Smith
H. C. Olsen
I. L. Dowdee
D. R. Lassiter
Tom Griffen

NATIONAL RING TRAVELER CO.
354 Pine Street
Pawtucket, R. I. *213*
Suppliers of: Travelers for spinning frames and twisters.
L. E. Taylor, Southern Mgr.
Frank S. Beacham, Sales Engr.
Donald C. Creech, Sales Engr.
M. L. Johnston, Sales Engr.

NEW ENGLAND MACHINE WORKS
574 E. Main St.
Waterbury, Conn. *106A*
Suppliers of: High vacuum stripping and cleaning equipment.
H. P. Worth, Southern Rep.

NEW YORK & NEW JERSEY LUBRICANT CO.
292 Madison Avenue
New York 17, N. Y. *109*
Suppliers of: Lubricants for all types of textile machinery.
Joseph H. Bennis, Pres.
Lewis W. Thomason, Jr., Southern Dist. Mgr.
J. A. Sorrells, Jr., Representative
F. W. Phillips, Representative
J. T. Pool, Representative
F. W. Winecoff, Representative

OAKITE PRODUCTS, INC.
19 Rector Street
New York 6, N. Y. *355*
Suppliers of: Specialized cleaning and related materials for textile mills including compounds for cleaning reeds, looms, heddles, harness; descaling heat exchangers; maintenance of air conditioning and humidifying units; cleaning and and stripping paint from equipment before overhaul and repainting; etc.
W. A. Baltzell, Mgr. Southern Sales Div.
O. D. Riddle, Jr.
L. T. Perkins
H. W. Kole
R. L. Jones
D. B. Lamb
J. P. Ivie
G. Williams
H. W. Hatley
B. F. Swint
G. E. Farrar
F. W. Weldon
G. Tatum

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ODELL MILL SUPPLY CO.
300 N. Forbis St.
Greensboro, N. C. *212*
Suppliers of: Textile mill supplies.
Dallas Neese, Sales
George Batchelor, Sales
Leon Jones, Sales
Charles Price, Engr.

ODOM MACHINE MFG. CORP.
26 Webb Street
Roswell, Ga. *115*
Suppliers of: Ball bearing comb boxes for cotton, woolen, and also garnetting cards; also other textile parts.
M. W. Odom, Pres.
Marie O. Holloway, Treas.
Harry A. Haynes, Salesman

OLNEY PAINT CO.
Spartanburg, S. C.
(See Gilman Paint & Varnish Co.)

ORR FELT & BLANKET CO.
Piqua, Ohio *310*
Suppliers of: Industrial woolens including slasher cloth.

J. C. PADDOCK CO.
S. Church St. Extension
Spartanburg, S. C. *432*
Suppliers of: Textile materials handling equipment.
Sam. E. Mabry

PARKS-CRAMER CO.
Newport Street
Fitchburg, Mass. *140*
Suppliers of: Certified climate and cleaning systems, central station air conditioning systems and accessories, automatic airchangers, laboratory air conditioners, yarn and cloth conditioners, direct humidifying systems, traveling cleaner systems for textile machinery and overhead surfaces, piping specialties and pipe fabricating.
R. S. Parks, Chairman
Maynard Ford, Gen. Mgr.
J. R. Henderson, Sou. Sales Mgr.
W. J. Buck, Sales Engr.
O. G. Culpepper, Sales Engr.
W. B. Granger, Sales Engr.
H. B. Rogers, Sales Engr.
L. R. Sibley, Sales Engr.
W. B. Walker, Sales Engr.

PARKS & WOOLSON MACHINE CO.
Springfield, Vermont *705*
Suppliers of: Cloth room, finishing, inspecting, and packaging machinery.
S. W. Hall, Southern Rep.

PENICK & FORD, LTD., INC.
420 Lexington Avenue
New York, N. Y. *433*

Penick & Ford (continued)
Suppliers of: Textile starches, dextrines, and gums.
D. P. O'Connor, Vice-Pres.
H. A. Horan, Gen. Bulk Sales Mgr.
P. G. Wear, Southern Bulk Sales Mgr.
G. M. Anderson, Technical Sales Rep.
Dave Lowry, Technical Sales Rep.
M. C. Borden, Technical Sales Rep.
J. S. Brice, Technical Sales Rep.
J. H. Almand, Sales Rep.
W. J. Kirby, Sales Rep.
L. C. Harmon, Sales Rep.
Guy L. Morrison, Sales Rep.
T. H. Nelson, Sales Rep.
Joe Hoagland, Sales Rep.

PERFECTING SERVICE CO.
332 Atando Avenue
Charlotte, N. C. *410*
Suppliers of: A revolving steam connection for dry cans, slashers, and other textile equipment.
Arthur J. DeMeyer, Sales Mgr.
Wm. G. Renner, Sales Rep.
Neal Higgins, Sales Rep.

PITTSBURGH CORNING CORP.
307 Fourth Avenue
Pittsburgh, Pa. *201*
Suppliers of: Glass blocks and cellular glass insulation.
Paul D. Japp, Gen. Sales Mgr.
A. I. Holmes, Sales Rep.
R. T. Thomas, Sales Rep.
E. H. Martin, Jr., Mgr., Bldg. Insulation Sales
V. Sanders, Mgr., Ind. Insulation Sales
H. C. Kelly, Sales Rep.

PLIBRICO COMPANY
1800 Kingsbury St.
Chicago 14, Ill. *215A*
Suppliers of: Refractory products; also complete construction service for setting boilers and erecting incinerators.
Frank S. Rieder, Adv. Mgr.
M. C. Ballard, Representative
H. Craig Roper, Representative

PNEUMAFIL CORPORATION
2516 Wilkinson Blvd.
Charlotte, N. C. *704*
Suppliers of: Pneumatic broken end collectors for spinning frames.
James W. Stuart, Director Of Sales
Geo. A. Archer, Regional Mgr.

POWER TRANSMISSION CO.
N. Main Street
High Point, N. C. *331*
Suppliers of: Power transmission items, including variable speed drives of fluid and V-belt types for textile applications.
W. S. Cross, Mgr.

PRECISION GEAR & MACHINE CO.
2001 N. Tryon St.
Charlotte, N. C. *257*
Suppliers of: Gears, chain drives, ball bearings, roving frame compounds, waste carousels, ball bearing lap pins.
V. A. Hanson, Vice-Pres.
J. B. Goodgame, Chief Engr.
D. A. Chapman, Sales
J. O. Sumate, Sales

PROCTOR & SCHWARTZ, INC.
7th St. & Tabor Road
Philadelphia 20, Pa. *238*
Suppliers of: Textile drying machinery, raw stock blending machinery, worsted cards, garnetts, hosiery boarding machines, and equipment for the Redmanized process.
Joseph P. Crist, Spartanburg Br. Mgr.
M. T. Fleming, Vice-Pres.
T. A. Mahon
H. B. Riehl, Vice-Pres.
John R. Schenck, Charlotte Br. Mgr.

PRODUCT SALES, INC.
21 Vernon Street
Whitman, Mass. *352*
Suppliers of: Climax ball bearing top rolls, "Cleanalign" drafting system, "Cleandraft" non-lubricating top rolls.
R. K. Butler, Vice-Pres.
W. E. Conlon, Sales Mgr.
Clarence McMahan, Serviceman
Richard Jackson, Serviceman
Monroe J. Smith, Serviceman
George Parkinson, Serviceman
Raymond L. McCauley, Salesman

THE PURE OIL CO.
35 E. Wacker Drive
Chicago, Ill. *514*
Suppliers of: Petroleum products.

PURITAN CHEMICAL CO.
916 Ashby Street, N. W.
Atlanta, Ga. *423*
Suppliers of: Industrial sanitation supplies.
Ted V. Fisher, Vice-Pres.
Charles E. Braun, Asst. Sales Mgr.
Ed P. Collins, Representative
H. S. Collinson, Representative
L. G. Martin, Representative
L. N. Sherwood, Representative
W. L. Eubanks, Representative
J. R. Strasser, Representative
Bruce Ford, Representative

RAGAN RING CO.
P. O. Box 174
Atlanta, Georgia *105*
Suppliers of: Spinning and twister rings.

RAMSET FASTENERS, INC.
12117 Berea Rd.
Cleveland 11, Ohio *323A*

RAYON AND SYNTHETIC TEXTILES (Publication)
New York, N. Y. *120*

REEVES PULLEY CO.
1225 7th Street
Columbus, Ind. *253*
Suppliers of: Variable speed drives and controls.
M. R. Snyder, Representative
Frank Higgins, Dist. Mgr.
M. O. Bradshaw, Dist. Mgr.
J. B. Thomas, Dist. Mgr.
Al Halliday, Representative
James P. Reeves, Sales Mgr.
Robert D. Moore, Adv. Mgr.

ROBERT REINER, INC.
556 Gregory Avenue
Weehawken, N. J. *138*
Suppliers of: High speed tricot machines, Raschel machines, Simplex (double knit) machines, Kaylooms, sectional and full width warping equipment, creels for all requirements, 66 gauge full-fashioned hosiery machines (4 sections) automatic shuttle embroidery machines (10 and 15 yards).

Robert Reiner (continued)

August Schoenenberg
George Moebius
Walter Horn
Sal de Lorenzo

RELIANCE ELECTRIC & ENGINEERING CO.
1088 Ivanhoe Road
Cleveland 10, Ohio 144
Suppliers of: A-c and d-c motors, adjustable speed drives, electronic controls and regulators, motor-generator sets, etc.

E. G. Orahood, Atlanta Dist. Mgr.
R. T. Willard, Sales Engr.
R. B. Reed, Birmingham Br. Mgr.
F. W. Leitner, Charlotte Br. Mgr.
C. D. Wright, Sales Engr.
L. M. Dunning, Boston Dist. Mgr.
K. S. Lord, Philadelphia Dist. Mgr.
J. L. Van Nort, Mgr., Applied Engineering
C. E. Robinson, Application Engr.
J. E. Walker, Sales Engr.
K. F. Ertell, Adv. Mgr.

THE REMBERT CO.
12 Ottoway Dr.
Greenville, S. C. 324
Suppliers of: Floor sealers and finishes; detergents and alkalis.

Claude W. Turner, Dist. Mgr.
T. L. Fitzgerald, Dist. Mgr., S. C. Johnson & Sons

J. E. RHOADS & SONS
35 North Sixth Street
Philadelphia 6, Pa. 456
Suppliers of: Flat leather belting, textile leathers, packings for hydraulic and pneumatic equipment.

J. T. Hoffman, Sales Rep.
Wallace E. Hubbert, Adv. Mgr.
A. Sidney Jay, Sales Rep.
C. R. Mitchell, Atlanta Dist. Sales Mgr.
J. W. Mitchell, Sales Rep.
R. H. Rhoads, General Sales Mgr.
L. H. Schwoebel, Sales Rep.

THE RIDGE TOOL CO.
400 Clark Street
Elyria, Ohio 458
Suppliers of: Pipe wrenches, pipe cutters, tubing cutters, compound leverage wrenches, vises, threaders, power drives, pipe and bolt threading machines, strap wrenches, longrip reamers.

R. D. Fye, Representative
L. C. Richardson, Representative
R. C. Chamberlin, Representative

ROBERTS COMPANY
Raleigh Highway
Sanford, N. C. 142B
Suppliers of: Spinning cradles, top rolls, no-oil wood cap bars and saddles, revolving clearers, spinning frame creels, spinning frame changeovers.

Ralph D. Padgett, Sales Engr.
R. Frank Walker, Sales Engr.
Carlton E. Oliver, Sales Engr.
Robert E. Pomeranz, Sales Mgr.

ROSS BUILDERS SUPPLIES, INC.
227 Pendleton St.
Greenville, S. C. 353
Suppliers of: Maple flooring.

Wade H. Stephens Vice-Pres.
H. E. Langston, Mgr. Engineered Sales Dept.
W. D. Connor, Connor Land and Lumber Co.

ROTHERM ENGINEERING CO.
4911 W. Irving Park Rd.
Chicago 41, Ill. 323
Suppliers of: Revolving joints.

H. S. Kuhn, Gen. Mgr.
Harley D. Hohm, Representative

B. S. ROY & SON CO.
801 South Bridge St.
Worcester, Mass. 207
Suppliers of: Card wire grinders.

L. P. Bell, Sales Engr.
W. F. Crowder, Sales Engr.

SACO-LOWELL SHOPS
60 Batterymarch St.
Boston, Mass. 236
Supoliers of: Textile processing machinery.

J. W. Hubbard
W. A. Thomason
H. M. Walsh
E. T. Cansler
C. S. Smart
Robert Hicks
Herman J. Jones

SAN'T ANDREA
Novara, Italy 211B
Suppliers of: Textile processing machinery.
(See Ernest L. Frankl Associates)

SARCO CO., INC.
350 5th Avenue
New York 1, N. Y. 404
Suppliers of: Steam traps, temperature regulators, special temperature controls for dyeing and finishing, special draining and air venting equipment for steam heated dry cans.

A. Milnes, Director
H. F. Collins, Director
R. H. Johnson, Sales Rep.
R. H. Johnson, Jr., Sales Rep.
M. J. Marion, Adv. Mgr.

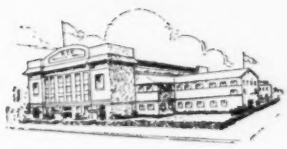
THE SELIG CO.
336-350 Marietta St. N. W.
Atlanta, Ga. 225
Suppliers of: Floor seals, and treatments, textile cleaners, degreasing compounds, soaps, waxes, disinfectants, deodorants, insecticides.

W. F. Bode, Adv. Mgr.
Lee Strasburger, Representative
Charlie Pearl, Representative
Charles Vickery, Representative
Milton Doctor, Representative
Alvin Hamburger, Representative
Alvin Schwab Representative
John Butler, Representative
Sam Hall, Representative

SEYDEL-WOOLLEY & CO.
748 Rice Street, N. W.
Atlanta, Ga. 234
Suppliers of: Sizing, penetrants, softeners, alkalies, shuttle dressing, "Twist-setter" machines.

Vasser Woolley, Pres.
John Seydel, Vice-Pres.
Paul V. Seydel, Vice-Pres.
David Meriwether, Sales Mgr. Finishing Div.
A. Welling LaGrone, Technical Adviser
W. L. Whisnant, Technical Adviser
W. H. Cutts, Technical Adviser
Joe E. Spearman, Technical Adviser
V. Robert Mills, Technical Adviser

SHELL OIL CO.
50 West 50th Street
New York 20, N. Y. 707
Suppliers of: Lubricants.



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Shell Oil (continued)

Edward Colerick
Warren Landis
W. Niedermyer
P. J. Thomas
E. S. Schulman

SIGNODE STEEL STRAPPING CO.
2600 N. Western Ave.
Chicago 47, Ill. 351
Suppliers of: Steel strapping, steel strapping tools, steel strapping machines and accessories.

M. C. Carlson, Sales Mgr.
C. E. Talbutt, Sales Rep.
O. B. Shelton, Sales Rep.
S. W. Brown, Sales Rep.
R. H. Chapman, Sales Rep.
J. D. Forestell, Sales Rep.
C. H. Carlson, Sales Promotion

SILL INDUSTRIES
51 Madison Avenue
New York 10, N. Y. 349
Suppliers of: Fibre Glass superheaters and SuperRadiant heaters.

Harold N. Bross, Pres.
Thomas F. Walsh, Sales Mgr.
Karl H. Inderfurth, Southern Rep.

THE SIMCO CO.
920 W. Master Street
Philadelphia 22, Pa. 304
Suppliers of: Static eliminators and special electrostatic equipment.

Julius Simons, Pres.
Wm. Rowedder, Textile Sales Rep.
Harold Schweriner, Applications Eng.
Dolph Simons, Sales Mgr.

SINCLAIR REFINING CO.
573 W. Peachtree St.
Atlanta, Ga. 103
Suppliers of: Lubricants and petroleum specialties for textile industry.

F. W. Schweitmann, Mgr. Lub. Sales
G. R. Dyer, Mgr. Ind. Sales
E. B. Morrison, Ind. Lub. Engr.
T. F. Morrison, Ind. Lub. Engr.
J. O. Holt, Ind. Lub. Engr.

J. E. SIRRINE CO.
Greenville, S. C. 205
Suppliers of: Industrial engineering and architectural services.

A. D. Asbury
Allen Bedell
R. R. Adams
George Wrigley
George Morgan
Horace Swannell
C. R. Macdonald
J. W. Cantrell
George Wrigley, Jr.

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J. E. Sirrine (continued)
George Cumbus
Jack Bringhurst
Bill Bozeman
Murray Stokeley
Bill Robinson
Grover Gaskin
Lowrie Burdette
Chester Hatch
C. T. Wise
G. P. Patterson
Holmes Frederick
Francis Dean
Oliver Going
Henry McDonald
Ansel Cox
Wesley Howard
J. T. Mallard

SKF INDUSTRIES, INC.
Front & Erie
Philadelphia 32, Pa. 511
Suppliers of: Ball and roller bearings, pillow blocks, textile spindles and tension pulleys.
F. J. Matte, Supv. Textile Sales Development
M. H. Courtenay, Atlanta Dist. Mgr.
R. W. Franklin, Charlotte Dist. Mgr.
B. F. Davis, Sales Dept.
J. T. Paradise, Sales Rep.
G. E. Allen, Sales Rep.
P. W. Dunlap, Senior Eng.
J. O. Cushing, Southern Textile Rep.

SLAUGHTER MACHINERY CO.
205 S. Church
Charlotte, N. C. 145
Suppliers of: Cloth handling devices, etc.
E. F. Slaughter
J. Fred Slaughter
A. P. Sommer
Mrs. G. G. Slaughter

SLIP-NOT BELTING CORP.
Box 3061
Greensboro, N. C. 358
Suppliers of: Leather belting.

SMITHCRAFT LIGHTING DIVISION
217 Everett Avenue
Chelsea, Mass. 212
Suppliers of: Commercial and industrial fluorescent lighting fixtures.
Herbert K. Knock, Sales Mgr.
Frank P. Larson, Jr., Rep.

B. SNOWISS FUR CO.
Hanna & Clinton Streets
Lock Haven, Pa. 227
Suppliers of: Shuttle fur strips.
B. Snowiss, Partner
R. E. L. Holt, Jr., Southern Rep.
Floyd A. New, Salesman

SONOCO PRODUCTS CO.
Hartsville, S. C. 241
Suppliers of: Cones, tubes, cores, cots, bobbins, spools, and other paper specialties for the textile and related industries.
John A. Reagan, Adv. Mgr.
C. H. Campbell, Vice-Pres.
John B. Coxe, Asst. to Vice-Pres.
W. B. Broadbent, Sales Engr.
Paul F. Williams, Salesman
Mertis F. Carpenter, Salesman
W. K. Lewis, Salesman
G. K. Lewis, Asst. Sales Mgr., North Div.
W. A. Biggs, Salesman
Richard Peacock, Salesman

SOUTHEASTERN SAFETY APPLIANCE CO.
1010 Crescent Avenue N.E.
Atlanta, Ga. 346
Suppliers of: Fire extinguishers, inhalators, resuscitators, first-aid supplies and equipment.
George D. Johnson, Pres.
W. E. Beddingfield, Field Engr.
P. H. Ellington, Field Engr.

SOUTHERN SIZING CO.
601 Campbell Street
East Point, Ga. 359
Suppliers of: Textile chemicals; also southern sales and servicing agents for "Hydropulse" textile processing equipment for warp sizing and finishing.
C. Russell Gill, Pres.
Jimmie D. Walker, Vice-Pres.
Robert V. May, Sales and Service
G. C. Rickard, Sales and Service

SOUTHERN STATES EQUIPMENT CORP.
Hampton, Ga. 244
Suppliers of: Ball bearing comb boxes, off-end stands, coiler conversions, card drives, cloth inspection tables, cast and cut tooth gears, textile repair parts.
W. A. Knapp, Salesman
R. W. Schrimshire, Salesman
C. H. Kennington, Salesman
J. C. Walters, Salesman
C. W. Walter, Sales Mgr.
R. D. Carmichael, Sales Engr.
T. E. Pyron, Acting Adv. Mgr.

A. E. STALEY MFG. CO.
Decatur, Ill. 413
Suppliers of: Textile sizing materials.

STANDARD MILL SUPPLY CO.
1080 Main Street
Pawtucket, R. I. 255
Suppliers of: Equipment and supplies for textile mills, including cloth inspection machines, size kettles, sewing machines, yarn reels, portable hydraulic lift trucks for beams and rolls of cloth.
L. F. Ott, Pres.
J. Kenneth Sumner, Sales Mgr.

STANDARD PRESSED STEEL CO.
Jenkintown, Pa. 417
Suppliers of: Self-locking nuts, steel shop equipment, steel shaft collars, and Unbrako screws.
George Gade, Field Sales Mgr.
Ray Gruber, Manager, Unbrako Div.
Joseph Hattersley, Southern Rep.
Harry L. Smith, Display Technician
William Tait, New England Rep.
John J. Wiest, Mgr., Flexloc Div.

STEEL HEDDLE MFG. COMPANY
2100 W. Allegheny Ave.
Philadelphia 32, Pa. 137
Suppliers of: Loom harness equipment and accessories, consisting of flat steel heddles, frames, reeds, shuttles, drop wires, warp preparation equipment, etc.
Victor C. Hassold, Pres.
Frank H. Kaufmann, Sales Mgr.
Harry W. Fehr, Vice-Pres.
J. J. Kaufmann, Jr., Vice-Pres.
Davis L. Batson, Sales & Service
Sam Zimmerman, Jr.
John Neuffer
Hugh Cash
C. W. Cain
H. P. Goodwin
R. L. Parker
R. G. Stevens
D. W. G. Macintyre
James Jacobs
Jess Long
Roy Jones
B. D. Pritchett

STEIN, HALL & CO., INC.
285 Madison Avenue
New York, N. Y. 463
Suppliers of: Warp sizes for natural and synthetic yarns, printing gums for pigments and soluble colors, finishing compounds.
E. Stein, Chairman of the Board
L. F. Costello, Sales Mgr., Textile Dept.
F. W. Perry, Charlotte Br. Mgr.
E. D. Estes, Atlanta Br. Mgr.
D. E. Truax, Chief Chemist-Charlotte Lab.
A. R. Robbins, Textile Development Chemist
W. S. Gilbert, Salesman
C. Garren, Salesman
H. Tobin, Salesman
J. Myrick, Salesman

STERLING ENG. & MFG. CO.
173 Gilligan Street
Wilkes-Barre, Pa. 215B
Suppliers of: Self stacking bobbin and cone boards, quill boards, and yarn handling trucks.
George McGee, Vice-Pres.

STEWART-WARNER CORP.
1826 W. Diversey Parkway
Chicago, Ill. 405
Suppliers of: Lubricants and lubricating equipment.
E. Ralph Harris, Ind. Sales Mgr.
J. Z. Esbenshade, Regional Mgr.
L. H. Gwynne, Regional Mgr.
D. W. Martinson, Regional Mgr.

SYLVANIA ELECTRIC PRODUCTS INC.
1740 Broadway
New York, N. Y. 505
Suppliers of: Fluorescent lamps, fluorescent fixtures, light bulbs, electronic equipment.
Dallas Rand
John Holland
A. J. Rugo
D. C. Schmidt, Jr.

W. O. & M. W. TALCOTT, INC.
91 Sabin Street
Providence, R. I. 406
Suppliers of: Belt fasteners.
M. W. Talcott, Pres.
G. W. Little, Sales Mgr.

CHAS. S. TANNER CO.
250 So. Water Street
Providence, R. I. 350
Suppliers of: Sizing and finishing compounds, sequestering agents,

and other textile chemicals.
C. Sumner Tanner, Vice-Pres.
William J. Cooney, Chemist
Howard C. Gerlach, Jr., Salesman
Karl H. Inderfurth, Southern Agent
Frank Kottek, Gen. Mgr. Bersworth Chemical Co.
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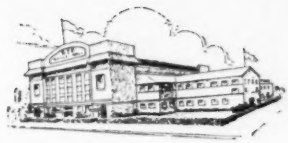

THE GREENVILLE SHOW
October 6-11

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TI's booth is No. 408. Drop by to see us, won't you?

Editorial, business, and circulation representatives of TEXTILE INDUSTRIES are looking forward to this occasion when we shall once again have the opportunity to see our mill men and supplier friends and meet many of the newcomers to the Greenville Show. We're counting on your stopping by to see us.

THE GREENVILLE SHOW

October 6-11

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AT BLUE RIDGE MEETING. Left, Jack A. Wilson of National Foremen's Institute talks with three textile men, B. E. McCardle and E. M. Johns of Avondale Mills, and Guy Glenn of Orr Mills. **Right,** Textiles, Inc., had all of these delegates at the meeting: Robert Grey, William Ashby, Gene Edwards, Tom Smith, M. B. Cloniger, Jr., M. C. Moose, Curtis Carlyle, and Frank Shubert.

Training and Communications

keynote Blue Ridge conference

Staff Prepared

TOP EXECUTIVES of southern industry met in Asheville, N. C., July 16, the day before the Southern Industrial Relations Conference in Blue Ridge, N. C., just 14 miles east. Max Kuniansky, Lynchburg Foundry Company; Dr. Leo Wolman, Professor of Economics, Columbia University; and Charles W. L. Foreman, United Parcel Service, were the speakers at the full day Conference.

College Grads as Supervisors. Mr. Kuniansky said that his company had been very successful in using college graduates in supervisory positions following an 18 months training course to teach them all phases of the business. Each year Lynchburg Foundry Company selects a number of students for these training courses, trying not to pick too many from any one college.

He also pointed out that his company had been most successful in relations with unions. He attributed the success to the education of supervisors on the line in the handling of labor grievances.

When asked how his company competed with others for labor when labor is scarce, Mr. Kuniansky stated that his policy was not to hire skilled workers from outside but to make use of an apprentice training system and only fill skilled jobs from within.

Economic Situation: this Year and Future. At the luncheon session, Dr. Wolman, of Columbia, gave his predictions of what is ahead for us in industry both from the short and the long range point of view. He saw very active markets ahead for the rest of this year with increasing sales and a rising economy. On the other hand, long range prospects do not seem too bright. He pointed to the increasing cost of government, the completion of much of the nation's required plant expansion and modernization, and the growth of labor unions with industry-wide and nation-wide organization. These factors, according to Dr. Wolman, indicate that the coming years will not be so propituous for the healthy growth of business.

Every Level of Industrial Personnel to be Part of the Show

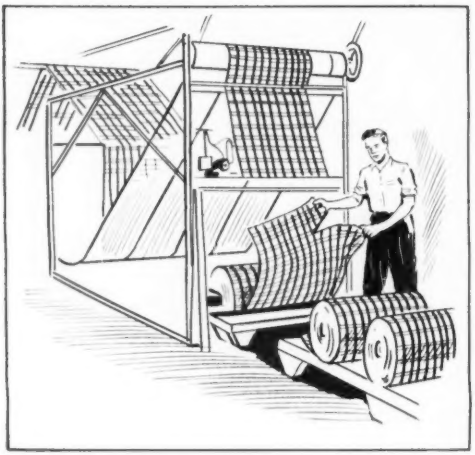
MORE THAN a thousand foremen, personnel people, superintendents, and other representatives of industrial management met July 16-19 in the Blue Ridge Assembly in the North Carolina mountains to listen to twelve prominent authorities on various phases of industrial relations and to discuss among themselves the problems brought before them during the past year.

At this thirty-third annual session of the Southern Industrial Relations Conference, two aspects of industrial relations soon shone as the most important to the audience . . . training and communication. While there is nothing new about the topics, the interest in them is something new to this part of the country.

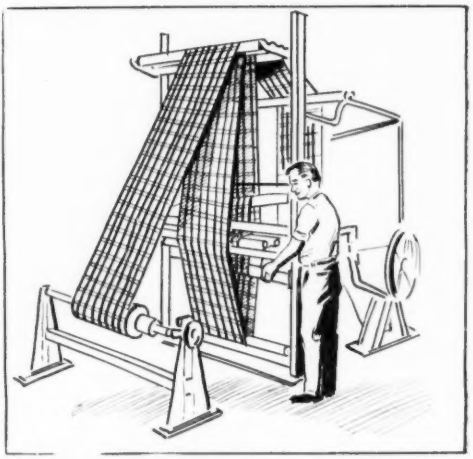
One speaker after another emphasized supervisory training as being one of the keys to successful industrial relations. Such men as Milton Mumblow, of General Motors and Daniel Rochford, of Standard Oil Company (N. J.) caught the interest of their audience in discussions of communications . . . the means used to carry the word from management down to the rank and file and then back up again to management.

If this meeting is, again this year, as it has been in the past, a preview of aims and activity in southern industrial relations during the coming year, this will be a year in which every level of industrial personnel will be part of the show.

Another great truth demonstrated clearly at these meetings is that southern management, while strongly opposed to unions in general, is every year learning how to live with them and prosper. There is no longer the great fear of unions so prevalent ten years ago.—H. H.



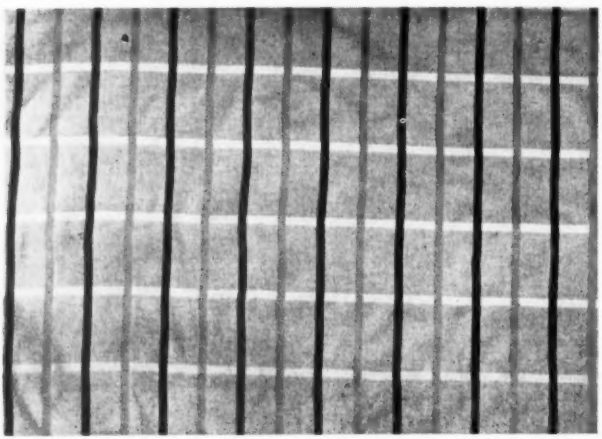
Tear Goods Before Sewing
The cloth must be sewn straight in the grey room, before starting through the finishing. Tearing causes more waste, but is essential.



Observe Goods in Process
Any machine that is causing crooked cloth must be adjusted promptly. Correction early in processing makes final straightening easier.

How to Get Square Cloth

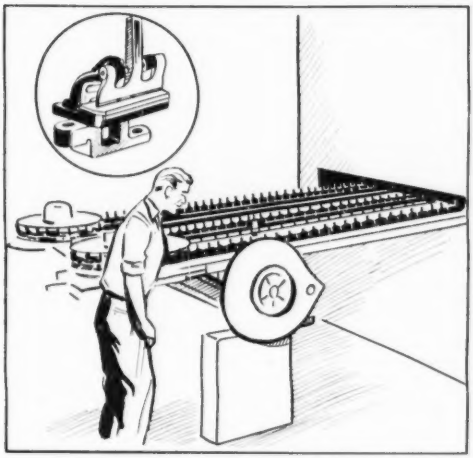
(Comments Invited. *The author of this article, superintendent of a well-known finishing plant, does not claim to know all of the answers on the problem of straightening cloth in the finishing process. He has, however, given his methods and requests that other finishers, who have additional ideas or correction methods, offer their comments to the editors for the benefit of the industry.)*



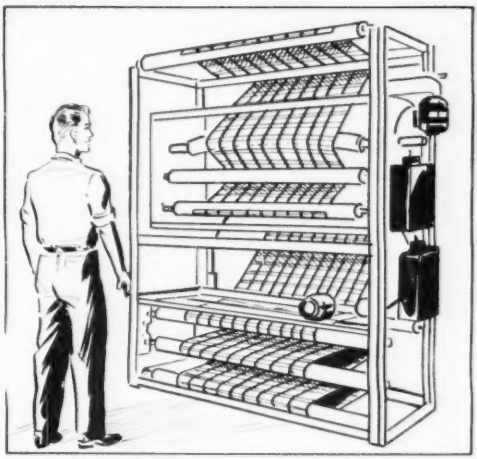
THE WET PROCESSING or finishing of woven goods with checked patterns in them has been a problem with the finisher for a long time. It is his job to process the goods through several machines and prevent bowing and skewing of the fabric, a condition which is easily noticeable on checks and other filling-wise patterns.

The finisher must also remove as much of the natural bow in the fabric as possible. Thus, as he processes the goods, the finisher is at the same time attempting to correct certain natural results of the weaving process (bow)* and trying to prevent defects which can easily be made in his own plant (both bow and skew).

"Beat-Up Filling" Stripes. The problem of the finisher was greatly magnified when the designers and weavers began making checked fabrics on dobby looms without multiple boxes. This is



Maintain the Tenter Chains
When one side of the chain is worn more than the other, a definite skew will be given the fabric; replace chains when wear is uneven.



Keep Expander Rolls Shipshape
Expander rolls can develop swells and dents for short distances, and rolls vary in diameter when worn; this causes skewing or bowing.

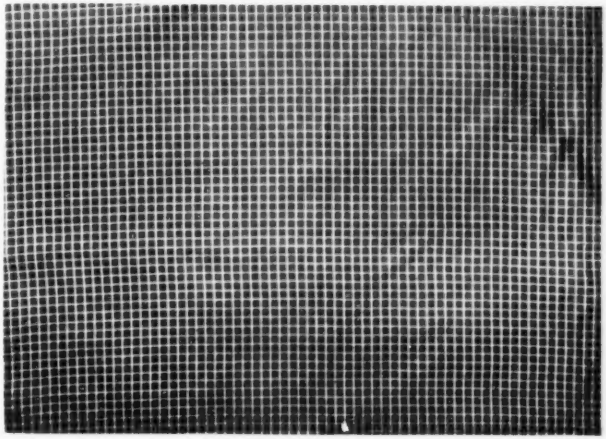
in Wet Processing

accomplished by inserting various widths of filling at specified intervals which we call "beat-up filling" satin stripes. The use of this system in weaving enables a mill which probably had only a few box looms and many dobby looms to increase its production of checked fabrics.

Although this discussion primarily concerns checked fabrics, the principles of correcting skew and bow apply equally to plain goods; however, the defective work is more pronounced on checked goods.

Even if the skew and bow show up in the goods after they are finished, the defective work is costly, but not disastrous—for they can be reprocessed and the necessary correction made the next time through the plant.

Sewing Important. The very first item in preventing skew is to have the goods sewn straight in the grey room, before starting through the finishing process. Almost always it is necessary to tear the



*Although the finisher must correct bow in cloth caused in weaving, the weaving bow is not nearly so troublesome as the bow that develops in the cloth during wet processing. This bow is usually a symmetric arc with the center of the arc as much as three to six inches above the ends of the arc. Then there is a skewed bow and a rattlesnake bow—or a bow with smaller bows across the width. When the cloth is stretched back to its proper width on the finishing tenter in the correct processing manner, these bows, both symmetric and unsymmetric, are pulled out straight in most cases.

ends of each piece to be sewn along the filling before sewing; this gives a straight seam, except for the bow in the cloth.

Even after tearing the cloth filling-wise, sewing can cause trouble unless the sewing machine operator keeps the cloth straight and sews along the line of the filling. A crooked sewing job at this point takes the entire piece through processing in a crooked manner.

Tearing of the cloth along the filling to get a straight seam naturally causes more waste, but it is essential waste when checks are processed.

Constant Observation of Goods. The simplest means of keeping the weft straight is not to let it get crooked. This may appear to be a facetious statement, but it definitely is not. All the machines through which the cloth passes must be observed, and any machine that is causing the filling to become crooked must be adjusted.

When the correction is made early in the processing, the final straightening by the finisher at his tenter frame and in the Sanforized process is reduced.

Expander Rolls Cause Trouble. We have found that our main sources of trouble are the expander rolls (curved rubber type) wherever they are used and the mercerizer tenter frames. The mercerizer tenter frame is likely to cause the most difficulty when one side of the chain is worn a greater amount than the other; the chains will travel at different speeds, thus causing one edge of the cloth to travel faster or slower than the other, thereby giving a definite skew to the fabric.

The only means of correcting this defective work at this point is to replace the tenter chain at such times as the wear on each side is uneven. So long as each side of the chain wears uniformly, the skew should not be serious.

The expander rolls must always be kept in first class condition or replaced when they become worn. These rolls can develop swells and dents for short distances, and the rolls also vary in diameter as they become worn. Such a condition causes uneven bows or skewed places for short distances in the cloth—more probably bows than skews.

While passing through the expanders, the goods must be observed. Although definite patterns of defective work are not always made at this point, it is a simple matter to observe the expander rolls while in operation and to determine whether or not damage is caused by them.

Effect of Expander Roll Alignment. Should the expanders be causing crooked cloth and still are not worn or out of line, it is possible to eliminate the trouble on that particular fabric by skipping the expanders entirely or by changing their pitch.

Less damage or change in the cloth occurs when the cloth and

Circular knitting machine fixers! Here's a device that

Magnetizes Tools; Demagnetizes

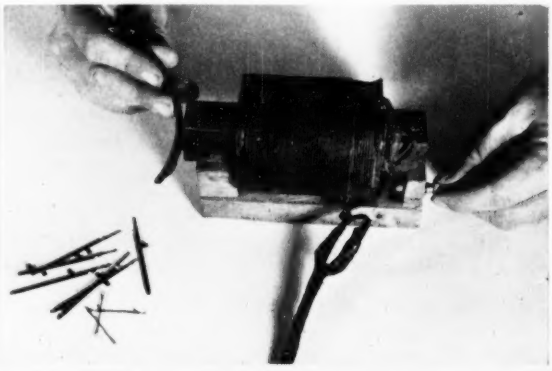
By ERNEST BRIDGES

IT IS NOT UNCOMMON for machine fixers to be plagued with machine parts becoming magnetized. In fact, an entire machine may become magnetized, thereby causing various kinds of knitting trouble. In such instances it is necessary to demagnetize the machine before any relief can be obtained.

Occasionally latch guards on Komets and yarn carriers on rib-

MAGNETIZED PARTS show their affinity to metal screwdriver which rests on latch guard.

TO DEMAGNETIZE part, pull it away from coil while switch remains on.



the expander are in the same plane. The bow is more pronounced if the expander is turned up or down away from the plane of the cloth.

Even though goods reach the finisher with filling that is not squared, his problem is still not too great if the defect is uniform—that is, if it is in the same direction. The greatest difficulty is experienced when the filling of the cloth skews in one direction temporarily and after a few yards changes to the opposite direction.

Correcting Bow. Very often we have bow and skew at the same time. The principle of correction is actually very simple, but execution of correction is not so easy because it requires close attention on the part of the operator and the supervisor.

The bow is removed by running the cloth over a pair of bowed rolls or bars which can be adjusted to do the job. The skew is removed by causing one edge of the cloth to travel a greater distance than the other edge—until the cloth is straight—and then to have both selvages travel at the same speed to remain straight. This is where close operator attention and close supervision are necessary.

Automatic and Manual Control to Remove Skew. When removing skew, pass the cloth over a straight roll or bar which can be pivoted or tilted. Such devices are often controlled automatically, but in some instances can be controlled manually. Manual operation naturally requires closer observation on the part of the operator, depending on the condition of the fabric, degree of skew, etc.

Manual control obviously is the more expensive method because of the labor cost involved.

The big difficulty in either case is that the filling must be seen while the cloth is traveling at production speeds; this is easy on some fabrics, but on others the machine speed must be reduced.

Although automatic devices are helpful in preventing skew, the fabric should be observed just in case the equipment is not operating properly. Also, the cloth must be watched at the beginning of a run or when processing a different construction because automatic devices for straightening have to be adjusted for each different construction.

At our plant we have automatic devices on the tenter frame where we attempt to straighten the cloth, and then in the Sanforized process we have additional devices where the final correction is accomplished—the latter are manually operated.

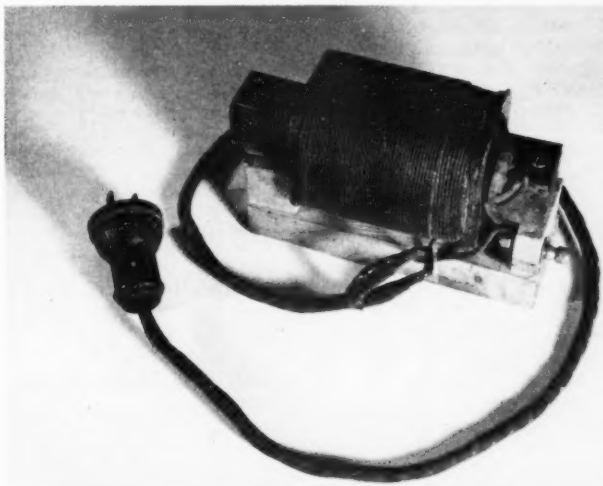
Even with all the modern electrical gadgets for straightening fabric and with operators paying close attention to manually operated equipment, it is quite probable that some goods will get by that are not perfectly square—thereby requiring some reprocessing.

Parts

bers become magnetized and bring forth attendant difficulties in knitting. A shop tool (see accompanying illustrations) was originally made to magnetize screw drivers or pieces of tool steel to facilitate fishing screws, needle butts, slider butts, and other small machine parts out of hard-to-get-at places. Upon experimenting, I found that the device may be used also to demagnetize small tools and various machine parts.

The device is simple to make and consists of a discarded coil from an old mercury vapor lamp, (used before fluorescent lights became popular). The coil was mounted on a wood base, and a cord, plug, and switch were installed.

Effective use of the device may be secured by holding the object to be magnetized against the end of the coil (see photo), turning the switch on while the part is in contact with the coil. Leave the object in contact with the coil for a short period of time, turn the switch off, and then pull the part away from the coil. To demagnetize, follow the same procedure, but pull the



MAGNETIC CONTROLLER may be made by using coil out of old mercury vapor lamp. Coil is mounted on wood with on-off switch, wire, and plug for 110-volt current outlet.

object away from the coil slowly while the switch remains on.

The accompanying photos show a screw driver and a Komet latch guard which were magnetized sufficiently to pick up one or more Komet sliders; the same objects may be quickly demagnetized completely so they will not attract any metal object.

We are still experimenting with the device, and to date we have not determined the maximum effective limits for large parts; however it is effective on such parts as latch guards on Komets, yarn carriers on ribbers, throat plates on S&W B-3 and B-5 machines, mouth pieces on Banner machines, needles, sliders, and numerous other parts.

How and why some of the forementioned parts become magnetized is another story. Some of the magnetism may be caused by machine fixers using magnetized tools. The tools may have become magnetized by having been idle alongside an energized electric wire, whereby the current in the wire induced a degree of magnetism in the tool.

Fixers should remember not to carry magnetized tools or other metal in their pockets since the tools may magnetize the parts.

Third Shift Essential to Mills' Flexibility, Textile Leader Asserts

In view of the great increase in population and public purchasing power, a new normal or average consumption level of nine and a half million bales of cotton seems indicated for the next few years.

This statement came from H. K. Hallett, of Charlotte, first vice-president of the American Cotton Manufacturers Institute, who at the same time described as "pure nonsense" the idea of excess capacity in the industry in terms of too much equipment and too many mills.

Tracing the revolutionary changes in the industry in recent years, Mr. Hallett, who is general manager of the grey goods division of Kendall Mills, said, "capacity to produce must of necessity be greater than the average demand if the requirements of boom periods and emergencies are to be met."

He explained that in the textile industry these demand adjustments are made not by recurrent periods of idleness and activity, as would happen in the case of a physical excess of machinery, but by varying the degree of labor application within the operation of the third shift.

Addressing a meeting of the Kiwanis Club in Charlotte, Mr. Hallett asserted that this area of adjustment is no wider than it ought to be.

"It should not be narrowed if the industry is to retain the production flexibility it should have in the national interest," he said. "It should not be widened if the industry is to protect the heavy investment it has made and the interests of its employees and stockholders."

The textile executive recalled that the cotton textile industry was an over-capacity industry from about 1925 to the late 30's. The cotton consumption of that period averaged about 6½ million bales a year and in that period over-capacity was clearly a physical excess, he pointed out.

Now, however, with active cotton spindles less than 21 million, the industry is called upon to process anywhere from nine to 10½ million bales, he said, while even in the current year—one of severe depression in the industry—the consumption will run about 9.3 million bales.

To do this, he added, requires an average spindle operation of about 96 hours per week, or 120 per cent of 80-hour capacity. Stated differently, to maintain production at the level of the past few months, the industry must operate two full shifts of 40 hours each, plus 16 hours or 40 per cent of the third shift.

Mr. Hallett termed the industry's normal area of flexibility within which it must meet changing conditions of demand as "scarcely more than a narrow band consisting of the top half of the third shift operation; or expressed percentagewise, the area lies between 80 and 100 per cent of full three shift operation."

All phases of the third shift problem are not quite as simple as they sound, however, he added, pointing out that if the third shift should be eliminated entirely in depressed times, workers would be lost and it is a long-time process to build up the work force again.

"In less depressed times," he continued, "management must think of fair and equal treatment of the workers on all three shifts. The solution of the third shift adjustment is one for each individual company to handle, because demand is different in different product lines."

Anyone Can Make Cloth with This Loom

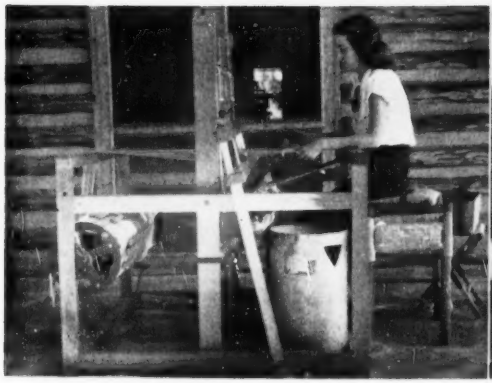
A Woonsocket, R. I., inventor's development of a hand loom may turn out to be the biggest thing of its kind since the sewing machine, according to the July 12 issue of *The Saturday Evening Post*.

An article entitled "Now Anyone Can Make Cloth" tells how Elphege Nadeau, a man who spent 25 years as a textile designer and weaver, has perfected a loom which can be operated by any child who can read and use his hands.

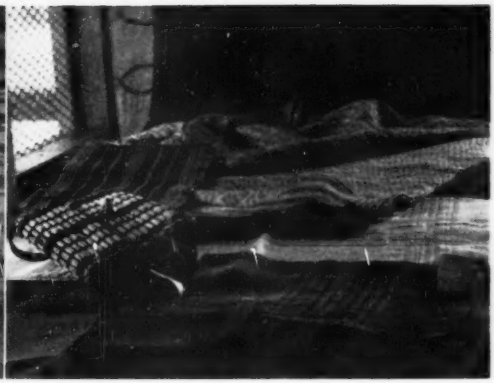
T. E. Murphy, author of the article, says that with only five minutes' instruction he undertook to weave material for a sport jacket.

The loom, made of tubular aluminum and weighing about 35 pounds, fits comfortably on a kitchen table.

"Brain" of the loom is a small cylinder containing eight rows of four holes each. Metal plugs placed in the holes according to the formula automatically set the pattern.



ON THE PORCH is where Miss Fern Dodd weaves.



PRODUCTS like these are what she makes.

Wanna Work in the Cool Mountain Air?

Staff Prepared

IF YOUR business is bad in the natural or synthetic fiber field, consider these possibilities: Weave your product of corn shucks, pine needles, bull rushes, cattails, scraps of veneer wood, or most anything that is handy.

Don't say it can't be done—because that's exactly what the weavers at Kalmia Handicrafts are doing, in the mountainous section at Rabun Gap, Georgia.

You may have a bit of trouble getting the corn shucks and cattails to weave properly on those Draper's, and you may wonder about sending the weavers out for a batch of bull rushes for filling (as they do at Kalmia Handicrafts), but then you've had problems before to overcome.

And besides, why worry about small details if the products will sell.

Using a hand loom and purchased yarn for the warp, these photographs, with Miss Fern Dodd as the weaver, show what a simple matter it is to sit in the cool mountain air, relax, and weave a couple of feet an hour of corn shuck "fabric," which soon winds up as a handbag—with the customer just waiting to buy it.

Note: Looms used at Kalmia are made by J. L. Hammett Co., Cambridge, Mass.; Reed Manufacturing Company, Springfield, Mass.; and some are handmade locally. Cotton and wool yarns for products are purchased. Kalmia is both a commercial enterprise and school project, with the weavers working their way through Rabun Gap - Nacoochee School.

CORN SHUCK filling is trimmed before inserting in shed.

SHUCK is placed in shed, beat up to hold in position.

TWO PICKS of yarn are inserted to fix shuck permanently.

LOOSE ENDS are trimmed. She's ready for next pick.

How to Wind Filament Nylon for

Attention to details in winding means the difference between profit and loss in the preparation of nylon.

By WILLIAM MOWBRAY
A. Schottland, Inc.
Rocky Mount, N. C.

IN WEAVING quality nylon sheers, we have had considerable experience with the problems encountered in winding 30 and 40 denier continuous filament nylon. We prepare the nylon for throwing at 30 turns per inch. Here at A. Schottland, Inc., we have found it is attention to details in winding that makes the difference in quality which is so important in the current market.

Most synthetic mills, accustomed to running filament acetate and viscose rayons, will face an immediate problem in changing to nylon, for the manufacturers of nylon package it on pirns instead of cakes or skeins.

Winding frames must be converted to handle the pirns. If the frames are equipped with swifts for skein winding, the swift brackets are removed, and a base, made of a 10-in. board, is put in place near the bottom of the frame. The board is held in place by brackets running from the board to the front cross-member of the frame. This arrangement is clearly shown in an accompanying illustration.

If the winding frames are currently equipped for handling cakes, it is merely necessary to remove the cake holders.

In either instance, a holder for pirns may be made by implanting an iron rod, ¼ in. in diameter and about 4 in. long, in the wood base. It is important that this base be level and that the rods be directly in line with the bobbins.

Tension. The less tension used in winding nylon, the better. Anywhere between one and three grams tension will make a good bobbin which can be successfully twisted. It is, however, necessary to use some type of tension device so that kinks will be kept out and the winding will be even.

We have had good results with the Sipp gate tension, but the disc type will do very well if just enough weight is used to keep the yarn from kinking. Our rule is to use a maximum of 1/10 gram per denier, or a maximum of three grams for 30 denier, checking this on a tensiometer.

Handling. After all that has been written about the horrors of dirt in the production of synthetics, it would seem that this would no longer be a source of trouble. But it is just like telling a small boy to wash his ears. Telling him once or twice is not enough. He must be reminded every day. In every synthetic mill, especially those handling nylon, there should be an abundance of soap, water, and towels handy to the operators. Nylon has a special affinity to dirt and perspiration.

The pirns of producer's nylon should be removed from the case with care, unwrapped, and placed over the pirn holder. Pirn caps may or may not be used, but they are inexpensive, and we have found them well worth the few cents cost in the number of breaks and broken filaments they prevent.

The only time the operator should touch the yarn being wound is when tying a knot after an end is down. The knot, for nylon, should be a double weaver's knot. Be sure the operators know how to tie a double weaver's knot.

The danger of dirt is not the only reason the operators should keep their hands off the yarn. This yarn from the producer has no turns, and the filaments will break with the slightest provocation.

Grade "B" Yarn. Grade "B" yarn is nylon which contains varying amounts of undrawn yarn. This yarn, which we call "rubber," will stretch like a rubber band, and it must be removed in winding, for it can cause bad defects if it gets into the cloth. Undrawn yarn produces goods with a series of loose picks or oversized ends which cannot be hidden even in printing.

Practically all rubber yarn will be found at a knot, usually on both sides. The amount varies from a few feet to as much as 20 yards. An eight-inch length can be stretched as much as three feet before it breaks.

The way to get this yarn out of that being wound is to use a cleaner to catch the knots. We use Berwick cleaners, and each one has a porcelain guide and two adjustable blades at the rear. The blades are set to the denier of the yarn being wound so the filaments are not broken; however, the blades are set to catch any knots or heavy

Twisting

spots in the yarn. When a knot reaches the cleaner, the yarn is broken, and the operator pulls off the rubber at each side and re-knots the ends.

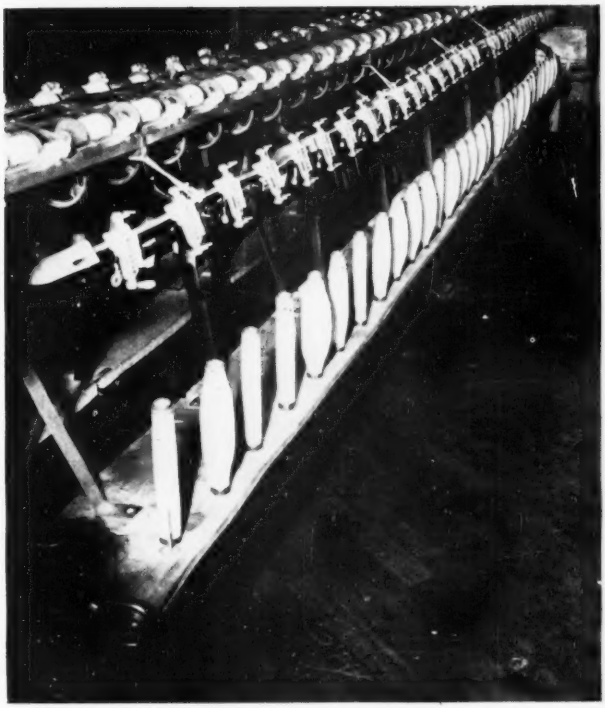
First Grade Nylon. When winding first grade nylon, we use AlSiMag guides which are very durable. Some porcelain guides develop rough edges which break the filaments. The AlSiMag guides seem to serve without wear, and we have found them more economical and are sure they produce better work.

Package Size. In all yarn winding, except nylon, the trend has been to larger and larger packages. Unfortunately, this cannot be done with nylon. It is best handled on small bobbins holding six or eight ounces. Nylon contracts after it is wound, even when the tension is minimum, and if an attempt is made to put too much yarn on the bobbin, the shrinkage will crack or break the bobbin.

Bobbin Condition. When a mill man changes from cotton to synthetics, he is always surprised at the time and attention given to bobbin care. In processing nylon, bobbin care is especially important. We run a number of synthetics, but the bobbins we use on nylon are always the pick of those in the mill. The slightest nick or cut on the head will break filaments and cause skin-backs or broken yarn.

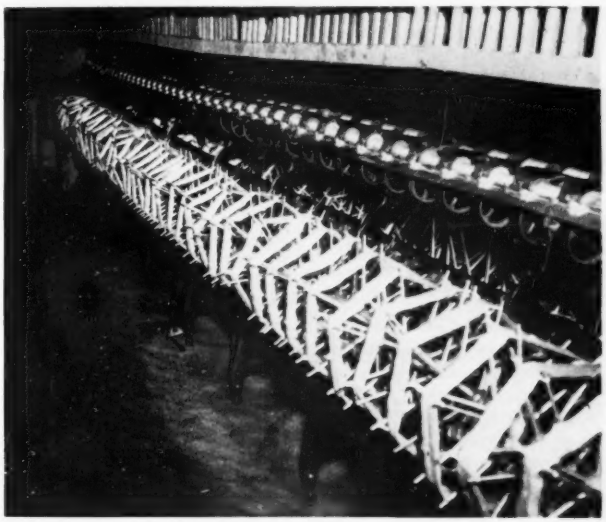
Bobbins used for nylon should be sanded before they are put in service, and all bobbins should be inspected in detail before being loaded on the winder . . . that is, if you are interested in making a profit.

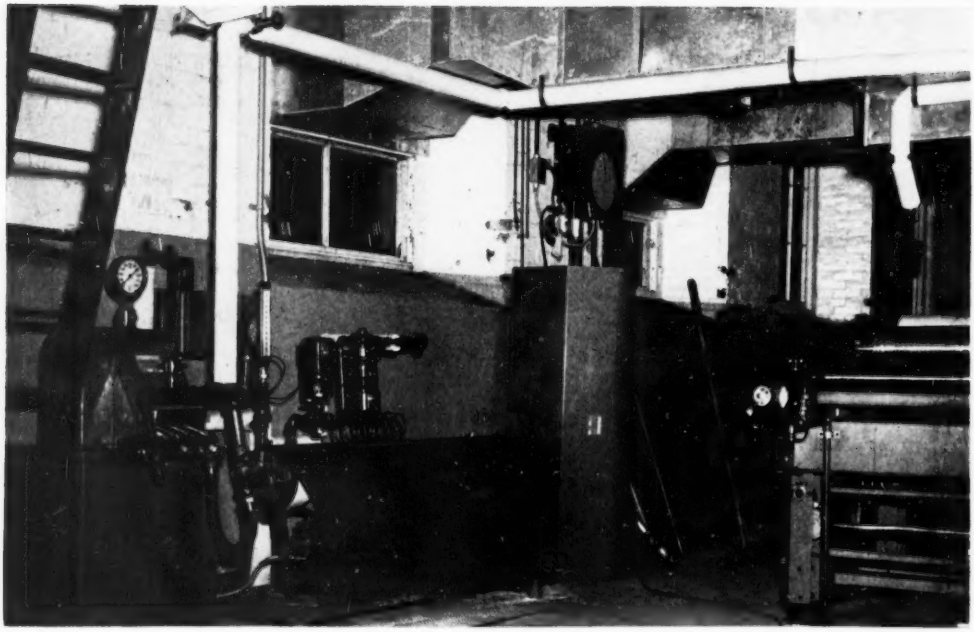
It is our policy to watch the small things, the important details. Nylon requires gentle handling if quality yarns are to be produced.



BASEBOARD AND PINS are required when winding nylon from pirns. Note tension device used.

WINDING FRAMES must be converted to handle pirns. Swifts and swift brackets must be removed.





Mill Eliminates Size Cooking

A composite article prepared exclusively for "Textile Industries"

A RECENT textile installation of warp size preparation equipment completely eliminates cooking and storage kettles and provides a flow of freshly prepared size directly to the slasher size box at the rate of slasher consumption. Although machine methods have previously approached such a system, this is thought to be the first successful commercial application which combines all of the known techniques of the relatively new size preparation process.

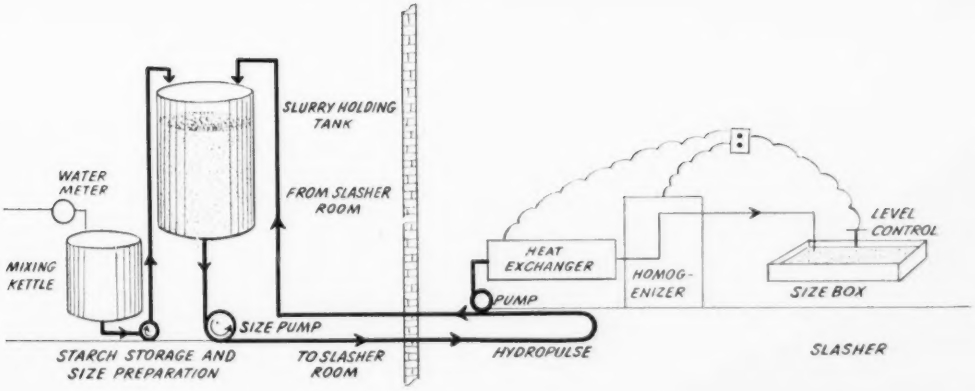
Size Box Level Control Operates Unit. A Scott & Williams' "Hydropulse," consisting of a heat exchanger and high pressure homogenizer, is automatically operated from a size box level control. The size mix is prepared in the starch storage area in the form of a cold slurry containing starch, water, and water miscible sizing auxiliaries, and the cold mix is circulated to the homogenizer-heat exchanger unit located near the slasher size box. Electrical connections between the probe level controls in the size box actuate the master switch which controls the operation of the unit.

In actual operation the size preparation equipment is operated automatically and intermittently to provide fresh size as the warp sheet picks up size in passing through the level-controlled size vat. The equipment design is unique in that it allows for the on-and-off operation of the homogenizing unit while pressure loaded, and the controlled operation of the heat exchanger prevents overheating and temperature variation in the size as it is furnished to the temperature controlled size box.

Fresh Size. Freshly homogenized size can be prepared automatically at any rate from 0 to 2.5 gallons per minute with only 0.8 gallons of size within the processing unit at any time, and with a size box requirement varying from 0 to 2.4 gallons per minute at 100% of slasher efficiency applying 12% added size to the warp yarns.

According to mill officials, other results are:

(1) Elimination of the variations in viscosity and concentration from the condensation of live steam in heating and cooking.



CONTINUOUS SIZE PREPARATION system used by a textile plant, showing flow from mixing kettle to cold slurry storage to homogenizer to size box. Note circulation of slurry to prevent sedimentation.

HOMOGENIZER-HEAT EXCHANGER UNIT is shown as installed in a textile plant. Homogenizer is at extreme left; connected to it is heat exchanger. To right of heat exchanger is automatic control system for slasher, including that of size box level control which operates preparation unit by calling for more size in size box as warp sheet consumes the mix. Slasher (not creeled in this photo) size box is at extreme right. This installation permits mill to prepare cold slurry size mix, eliminating cooking and storage kettles.

and Storage Kettles

(2) Decreasing the man hours required for size preparation.

(3) Savings in material, labor, and steam costs.

(4) Increased weaving efficiencies and reduced shedding.

(5) Elimination of batch kettle heating and cooking in favor of a continuous flow process.

(6) Reducing the variation in the added size content of slashed yarns.

The Slurry Mixes. In preparing the cold slurry size mixes at the point of starch storage, automatic re-set water meters are used to draw the cold water into the slurry mixing tanks; the indicated quantity of a suitable warp lubricant is added, agitation is commenced with paddles, and the desired number of bags of starch are added and allowed to mix by agitation for two or three minutes.

The cold slurry mix is then kept further agitated by pumping through a Saco-Lowell size pump which loops the cold mix through pipes from the bottom of the slurry tank to the homogenizer unit location at the slasher and returned to the top of the slurry tank. This looping of the cold mix prevents any sedimentation of starch in the lines, and the tumbling action of recirculating from the bottom to the top of the slurry holding tank affords sufficient agitation to keep the starch in suspension in the large volume holding tank.

Since there is no dilution of the mix with the condensate from live steam during preparation because the heat exchanger element of the homogenizer unit is steam jacketed, the cold slurry volume and concentration equal that of the finished mix being provided to the slasher size box except for the approximate 3½% increase in the water volume as it is heated from room temperature to 204 F in the processing unit.

A representative cold slurry mix being used with this particular installation is as follows:

(1) Draw 180 gallons cold water
(2) Start stirrers
(3) Add 24 pounds warp lubricant
(4) Add 200 pounds pearl corn starch

This mix finishes at 200 gallons in the cold slurry form, although no measurement of volume is ever necessary beyond the setting of the water meter.

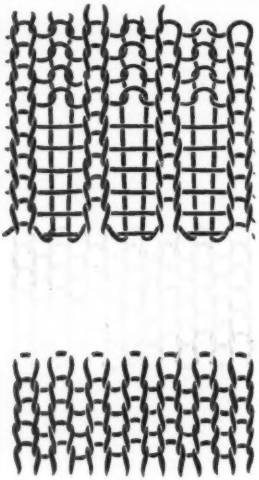
Operation of Homogenizer-Heat Exchanger Unit. As the warp sheet exhausts the size from the size box, the special level control system calls for additional size by automatically closing the circuit which actuates both the booster pump

Soluble Yarn Used to Produce "Perfect" Sock Welts

A soluble yarn is being used by some hosiery mills as a means of producing a perfect welt in all types of socks, according to information published by Courtaulds, Ltd., manufacturers of the synthetic yarns.

A few courses of the calcium alginate yarn are introduced between the toe and the next welt in the knitting process. After knitting, the socks are separated by cutting through the courses of alginate yarn. The toes are linked in the normal manner, and the remaining alginate courses at the welts are dissolved (by treatment with alkalis) in the subsequent scouring process, leaving a perfectly finished edge to the welt.

How alginate yarn (light threads) is introduced between the toe (black threads at bottom) and the next welt (black threads at top).



Advantages claimed are: (1) Manufacturers not equipped with machines fitted with the draw thread mechanism are able to produce by easy means a more perfect article than that obtained with the draw thread attachment; (2) the clipping operation is eliminated; (3) damaged welts which normally result from clipping the fringe present in the non-draw thread production are eliminated; (4) the alginate method is equally applicable to machines fitted with the draw thread mechanism; in this case it gives an economic advantage since it replaces the process of draw thread removal.

Wet Leasing Reduces Warp Yarn Shedding

Through sponsorship of research work by various chemical producers and textile firms, the Southern Research Institute has found that certain cellulose derivatives when used for sizing are highly effective in preventing the shedding of fibers.

Still another research project, under sponsorship of Avondale Mills, gives even more promising results through a sizing process known as "wet leasing." This, too, tends to reduce the amount of shedded lint.

The Institute built a wet-lease system into its slasher by mounting nine steel rods in line between the size box and dryer. These rods were attached to a gear train which turns them in the direction of the yarn travel.

As the yarns emerge from the size box they are separated by the lease rods before entering the dryer. Each yarn passes over one rod and under the next, and is thus wiped on both sides. The rotation of the rods serves to wipe the size continually on the yarn and also to prevent build-up of size on the rods.

motor of the heat exchange unit and the high pressure homogenizer motor. The cold slurry mix is drawn from the loop circulating pipe system through the booster pump into the heat exchanger; the pump pressure actuates the steam supply (50 psi), and the heated mix flows through the closed system to the homogenizing unit.

The heat exchange unit is temperature controlled; for processing pearl corn starch the regulator is set for operation at about 190 F and the homogenizer is operated at a minimum of 1500 psi. There is a temperature increase due to attrition at the homogenizer valve assembly which varies directly with the pressure of homogenization. Both the temperature and viscosity of the finished mix can be measured and recorded as it is delivered to the temperature-controlled slasher size box.

When the high level probe on the size box level control system becomes immersed, the master switch is automatically thrown into the open position, cutting off both homogenizer motors and instantaneously cutting off the heat exchanger steam supply. Since the homogenizer-heat exchanger unit was designed specifically for the continuous preparation of textile sizing and finishing mixes, it has the faculty of operating intermittently with the full load on the homogenizing unit during operation, and depending upon consumption of size from the size box, the processing unit will operate intermittently and automatically without the operator's attention.

No flushing of the system is necessary unless the homogenizer is to be taken out of operation for a period of an hour or more, and then a water line is opened at the heat exchanger intake which allows passing a few gallons of either cold or hot water through the unit and out through a by-pass at the homogenizer outlet.

Although homogenizer units of the same design have been operated by textile mills on a continuous basis for more than a year, this particular installation is the first of its kind to feed directly to the slasher size box with the complete elimination of any volume of stored size.

The principle of this type installation is said to be applicable to the operations in a finishing plant.

← ***Before***

HOPPER OVERFLOWED and bobbins spilled onto floor before the automatic control was installed. In this instance the hopper is equipped with a control device, but it was made inoperative to show the effect of overloading the hopper.

Bobbin Conveyor Control Pays Off

No more damaged yarn because of hopper overflowing.

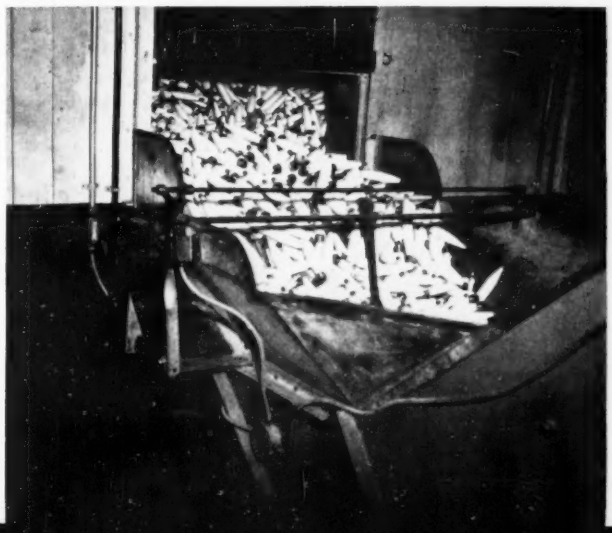
AUTOMATIC REGULATORS have proved helpful in controlling the quantity of bobbins fed to hoppers which carry full bobbins to filling conditioners at Cone Mills Corp.

Belt conveyors, extending through openings in the wall (see accompanying illustration) deliver filling to the feed hoppers. When operation of the conveyor belts was manually controlled, filling piled up in the hoppers and spilled over onto the floor. This resulted in large amounts of bruised and dirty yarn.

C. K. Shumann, an employee in the filling conditioning room at Cone's White Oak Plant, Greensboro, N. C., conceived the idea of controlling the flow of bobbins to the hoppers automatically by installing a rod across the top of each hopper, mounting it in bearings at each end, and attaching a long feeler finger to the center of the rod. When the hopper is empty, or nearly so, the feeler finger hangs downward. As the bobbins fill the hopper, they push the feeler up, thereby turning the rod in its bearings. The rod is attached to a cam lever which actuates a roller type trip switch, and the switch controls the motor driving the feed belt.

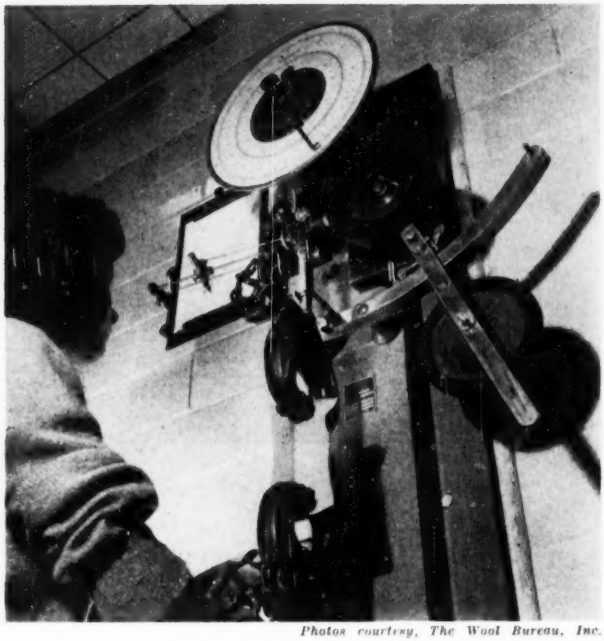
As soon as the hopper is full and the feeler is raised to a nearly horizontal position, the switch is tripped, and the filling bobbin conveyor is stopped until the hopper level is lowered.

After →



OPERATING FINGER of the control extends downward over the bobbins in the center of the hopper. The control maintains a normal level of bobbins at all times. Control switch is located at left of hopper.

WHITE BLENDS, if composed of two or more diverse stocks, require as much care in handling as a fancy mix of many colors when laid down at the picker.



ADDITIONAL PICKING damages the fibers, and if the yarn or fabric were barely passing the required test, extra processing may lower the tensile strength to an unacceptable level.

Photos courtesy, The Wool Bureau, Inc.

How woolen carders can help prevent

Off-Shade and Cloudy Fabrics

By W. J. CROFTS

OFF-SHADES, shaded, and cloudy fabrics are a source of expense and a cause of lost time in many carded woolen mills. Blends that show off-shade in the roving must be taken back to the blending room for re-mixing with small amounts of one or more colors to alter the mix to the correct shade. The customer demands and expects the shade to be right, and buyers, especially of the higher grades, do not want off-shades or cloudy fabrics, even at a reduced price.

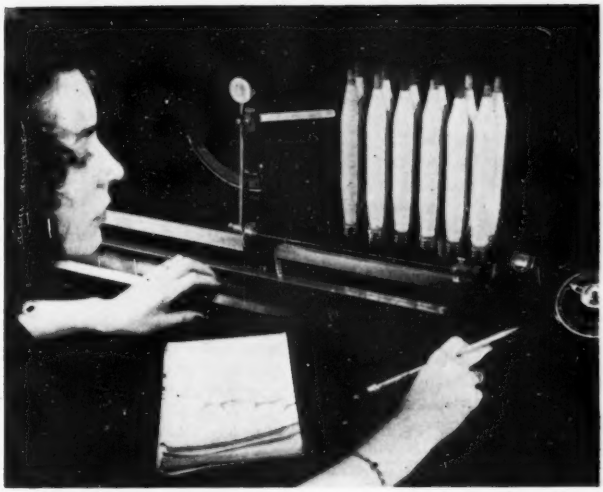
Carded woolens are usually made of mixtures of two or more colors. The primary cost of the blends may be reduced by mixing a variety of natural and synthetic fibers which show diversity in lengths and properties. Such mixtures are difficult to blend satisfactorily to produce uniform shades. Assuming that all stocks from the dye room are on-shade, it is worthwhile to examine some of the reasons and remedies for off-shade finished fabrics.

Blending. Careful blending is important to insure an even shade throughout the fabric. Mixtures of long and short fibers, such as long mohair and short noils, require extra care. Weighing the various stocks and colors is equally important, and careful consideration should be given to the moisture content of all stocks, whether dyed or in their natural state. Total indifference to the moisture present, or a slight error in weighing, may produce ill effects on the final color.

In a simple Oxford mix, consisting of 45% black virgin wool, 55% black re-worked stock, and 5% white wool, the two blacks and the white wool should each be divided into four separate parts. The resultant mix would include four layers of each stock and col-

or to insure a uniform distribution of both the elemental stocks and colors. A little extra care and time taken in laying down a blend is time well spent, and even the most modern sandwich picker employs the principle of pre-blending by hand. No picker can properly assimilate and make a uniform blend of thick layers of stocks and colors.

A slight error in weighing either of the black stocks would not materially affect the shade, but the white stock should be accurately weighed to provide control of percentages. An error of only a few ounces per 100 lb of the mix may alter the shade, and for this reason the weighing scales should be periodically checked for accuracy. Only scales of known dependability should be used. It is amazing to note the condition of some scales and the implicit confidence the personnel have in any scale that will balance at zero.



EXCESSIVE TWIST produces the appearance of a darker shade on mixtures of contrasting colors; less twist produces the opposite effect. Testing the yarn for shade is accurate, and slight off-shade may be easily detected one step from the finished fabric.

Is the Scale True? Scale accuracy is essential on small lots and is especially important in weighing a combination of colors or stocks. In the foremementioned Oxford mix there would be five pounds of white in a 100-lb lot. If there should be an error of only 4 ounces when weighing the white stock, the shade would be altered 5%. An error of 8 ounces would effect a change of 10%, and either change would be noticeable in the finished fabric. A special weighing scale that will accurately register fractions of an ounce should be used when making samples and small lots.

Moisture Content Important. If no attention is given to moisture content, one lot may be made with both black stocks fresh off the dryer with no moisture present, and another may be made from black stocks that had been in storage for weeks, making a 10-15% regain in moisture. The difference in moisture content may effect a slight change in shade; however any great variation in the moisture content of the 5% of white stock would seriously affect the shade of the mix.

Carding. If a fine white wool is used, trouble often arises from white wool specks in the carding. To overcome this condition, a coarser, clearer wool should be substituted. The coarser fiber has a stronger tendency to show on the surface, the finer white fiber going to the center of the yarn; therefore the percentage of coarser white wool must be reduced sometimes to 3½% in order to get the original shade. The same facts apply to any contrasting colors.

The 5% Oxford mix is rarely changed in shade by the carding operation. A classic example of a mixture that needs careful checking for shade in the card room is as follows: 50% white virgin wool; 50% black reworked stock. In this instance the blend is evenly divided with regard to contrasting colors and physical characteristics of the stock.

Assuming that the mix is satisfactorily blended, slight errors in weighing would have little if any effect on the shade. If the mix is processed on a freshly stripped card, at the start the empty card wire would absorb far more than normal percentage of the shorter black fiber, and a larger percentage of the white fibers would be delivered in the roving; therefore a much lighter shade of stock would be produced. As the card wire gradually fills, the shade gradually changes until the stock runs normally. The card cylinders reach normal load condition in about two hours; however enough off-shade stock gets scattered throughout the lot to cause many seconds. The problem may be solved by stripping only one section or one half of the card at each stripping. The first yarn spun should be segregated and checked for shade.

A mixture of 25% white virgin wool and 75% black re-worked stock would show a greater change in shade after stripping the entire card in that there would be a greater loss of the short reworked stock. Any mix of contrasting colors, notably combinations of virgin wools with reworked stocks, is susceptible to variation in shades, and 100% virgin wool mixes are not excepted.

Effects of Card Condition. If the 50-50 blend is carded on two or more cards, and if there is a difference in the fiber-carrying capacity of the card wire on the two machines, there may be a different shade for each card which continues throughout the lot. Differences among cards may be easily detected by comparing samples of scoured roving or the spun yarn

from each card. One card may have three cylinders; another four cylinders. The four-cylinder card may show a greater shrinkage from card waste, and a difference in shade would exist in the product of the two cards. The shade factor is a matter of variation in shrinkage between two or more cards, the shorter stocks in the blends showing a greater relative loss in the form of card waste.

A blanket mill developed serious trouble with shaded filling bars on olive drab (a 100% virgin wool blend composed of five shades of dyed wool). There were several grades of wool with a great variation in the lengths of the fiber. The carder called the manager's attention to the great difference in shrinkage among the three cards on the blend and attributed the trouble to two of the cards having worn clothing.

A check was made of a shade of scoured yarn from each card, and the results showed a different shade from each machine. Yarn from each card was kept separate, and each was given a different lot number, thereby preventing the shaded filling bars. By taking a handful of card waste and comparing it with the roving, it was easy to see the cause of the trouble by observing the difference in the shades of the two stocks.

White Blends Require Care! White blends for piece dyes or solid color blends are often given a skimpy blending, the assumption being that such blends need less mixing to insure an even shade. The white blends, if composed of two or more diverse stocks, require as much care in handling as a fancy mix of many colors when laid down at the picker. Piece-dyed cloth sometimes will not dye evenly, showing streaks, or there may be a cloudy effect throughout the piece, despite care exercised in the dyeing process.

The following blend for piece dyes is not unusual: 25% white wool; 20% garnetted white; 55% good quality card waste. If this blend is not carefully laid down in many thin layers and given at least two runs on the blending picker, there is just as much danger of producing a cloudy, shaded fabric as there is with a badly blended mixture of colors.

The woolen card cannot correct insufficient and faulty blending; consequently the yarn and fabric may contain spots and streaks. Wool has a greater affinity for the dye than some synthetics and will show a deeper shade and produce a blotchy, cloudy fabric. A marked variation in carding can give somewhat the same effect as mixing yarns from two or more cards.

Blend Waste First. Waste stocks for woolen blends vary greatly in quality, character, and fiber strength, and a good method of establishing a standard of quality is to lay down a huge blend of the waste separately, if the space is available. If well blended, the sample lot will furnish a uniform standard for all lots in which the waste is incorporated as a component.

If waste is shipped to the mill in small lots from many sources of supply and used as is in the blends, the dyer may have difficulty in obtaining the desired shade. The difficulty is usually attributed to a variation in the dye affinity of the different lots of waste. There may be a marked difference in shrinkage in the carding from lot to lot, and on a mixture of colors each lot may show a different shade and also have an effect on the shades of piece-dyed fabrics.

Danger in Reprocessing. Producing the correct shade is a scientific problem, and everything possible should be done in the preparatory processes to secure good results. If the roving or yarns are found to be off-shade, the lot can be taken back to the blending room for correction and further blending. Although the right shade is secured there may be a mixed effect if the blend is for a solid color fabric; furthermore there is some uncertainty in obtaining the standard tensile strength in the yarns. Additional picking damages the fibers, and if the yarns are barely passing the required test, extra processing may lower the tensile strength to an unacceptable level. Additional labor cost and lost production time also should be considered.

Checking for Shade. The usual method of shading a lot is as follows: take a large handful of the blended picked stock; card the stock on a sample card; scour and dry; then match with the standard sample shade. The procedure is not quite as reliable as a shade from a hank of yarn.

For many years I had the responsibility of shading all lots in a high grade fancy woolen mill where about one half the production was nubbed yarns. These yarns were tested for shade in the spun yarn primarily to check the size of the nubs.

Soon after starting a lot on the card, a hank of three strands of roving was taken to a mule or frame set for the same twist, three ends were broken out, and the three strands of roving pieced-in under the spool and spun onto the bobbins. The hank of yarn was scoured and dried with a hank from the original sample bobbins and if off-shade, the entire lot was taken back for a re-blending after adding the colors necessary to get the right shade.

Soon the nubbed fabrics consistently showed on-shade, and the plain unnubbed cloth (which was checked for shade in the roving) too often showed a decided off-shade. After instituting the practice of testing all lots for shade in the spun yarn, all off-shades were detected and corrected before getting into the fabric.

Twist. It is worthwhile to be sure that the right amount of twist is used. On mixtures of contrasting colors, excessive twist produces the appearance of a darker shade, and less twist produces the opposite effect. If there were a limited supply of wools or stocks, a substitution from another source of supply may have an effect on the shade.

The spun yarn is only one step from the finished fabric; therefore testing the yarn for shade is accurate, and even a slight off-shade can be easily detected. Nearly all mills use a sample card for shading purposes. Perhaps some inexpensive method may be developed to go a step further by hand spinning a hank of yarn from a carded shade of the prepared blend. An old spinning wheel could be used. Re-

gardless of method, detecting off-shades before putting the blends into production is a time and money saver.

Making samples is usually a rush operation, and the poundage per sample is small. Care should be exercised in weighing the small amounts of colors. Only delicate scales should be used, and if the samples are not given careful attention, the larger lots will show a different shade than the standard samples.

Watch these Mechanical Details. Insufficient or faulty blending of colors in the blending room is easily detected on the bobbin of yarn. If a gray mixture shows several shades darker at the bottom, gradually changing to a lighter shade throughout the length of the package, the cause definitely is from faulty blending. No woolen card could produce such variations in shade from a properly mixed blend. If there is a cloudy effect with no definite change in shade, the cause is likely to be worn or coarse card wire.

If there is a sharp change in shade at one section of the mule or frame, the trouble may be caused by spools of roving from two different lots getting mixed.

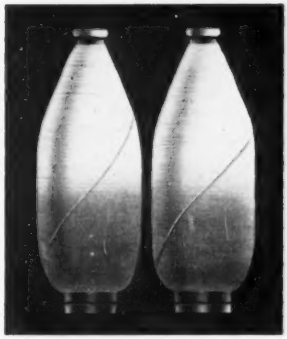
Excessive demands for high production is another cause of trouble.

There is always a possibility of two consecutive lots of the same blend showing a slight difference in shade. There may be two different blends so close in shade that it is difficult to differentiate under artificial lights. Two blends of exactly the same shade but of different grades or sizes may be difficult to differentiate. Consequently all spools of roving should be marked.

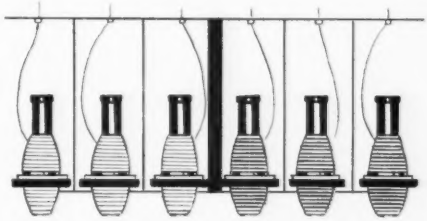
Identification. The bobbins of yarn may be marked with chalk, but chalk marking is not practical on soft roving. Slips of colored paper about 2″ x 5″ may be used to identify the yarn by stamping the card number on each slip. Slips of different colors should be used for each lot to help prevent mixed roving and yarns. One slip should be placed under the bottom layer of each spool when doffing and another at the outside of spool just before doffing. The use of two slips of paper provides a double-check. If the slip on the outside is lost, the spinner can open a section of the roving and quickly identify the color of the slip of paper under the bottom layer on the spool.

All shifts should use one color throughout each lot. Roving made from each shift may be identified by requiring the day shift to use plain slips of paper. The second shift should use slips with one perforation, and the third shift should use slips with two perforations. When shifts change, all slips of paper for the previous shift should be removed and slips for the incoming shift substituted. The same procedure must be used when changing lots, using the color designated for the new lot.

The system provides an excellent safeguard to prevent mixed roving, and all operatives can identify every spool of roving at a glance, even under artificial lights. Only colors that contrast sharply under the lights should be used. Pale yellow and white, for instance, are not easy to separate at a glance.



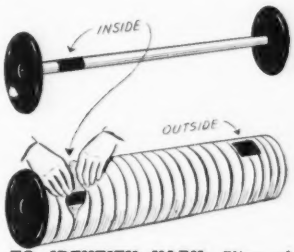
DARK SHADES near the bottom of bobbins spun from a gray mix gradually changing to a lighter shade indicates that the cause is from faulty blending.



A DEFINITE CHANGE IN SHADE of yarn at one section of the mule or spinning frame may be caused by spools of roving from two different lots getting mixed.

Additional Trouble Points. There are many other causes of off-shades and cloudy fabrics. In dyeing, a change in the dyestuffs and a slight variation in the resistance of the dye to the scouring or fulling operation may produce undesirable results. Some woolen stocks may have been chemically treated in one of the preparatory processes, thereby rendering the stock resistant to the penetration of the dye. In piece dyeing, if the grease wool is unevenly scoured, and if the dye bath is not thoroughly mixed before the fabric enters the bath, there will be dye streaks. Adding dyestuff to the bath while the piece is being dyed may cause dye streaks.

In finishing, uneven soaping may produce a streaky, cloudy effect. If soap solution is too hot, an entire piece may be made off-shade. Cloth carbonizing has an effect in changing the shade, but an allowance is made for this condition. Uneven scouring of fabrics will cause streaks in piece-dyed goods.



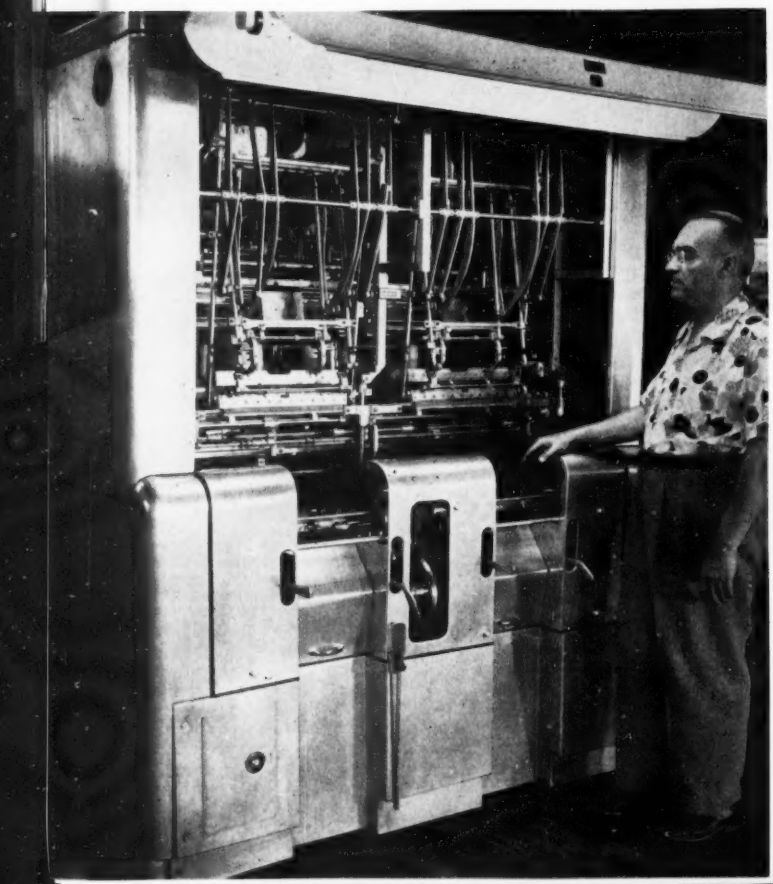
TO IDENTIFY YARN. Slips of colored paper may be used to identify the yarn by stamping the card number on each slip. A different color slip should be used for each lot. One slip should be placed under the bottom layer of each spool and another near the outside layer of the full spool.

The Cobert Electronic Knitter

A NEW type of full-fashioned knitting machine has been developed, and the pilot model is in production making 60 gauge 15 denier full-fashioned stockings.

The Cobert knitter is under wraps and is not to be shown publicly until final details are completed for producing the machines in quantity. Fully automatic in operation, many features of the machine are patented and patents are pending on others.

Development of the machine has progressed over five years. The inventor, Arthur J. Cobert, started work on his new approach to full-fashioned knitting on July 17, 1947, and he actually knitted fabric on the machine in September 1948. The new approach involved the design of an entirely new frame, distinctly different from full-fashioned machines produced heretofore. The project is underwritten by Beautiful Bryans, Inc., Chattanooga, Tenn. Claude Shannon built the electrical equipment, and Walter Coleman designed the electrical and electronic equipment to Mr. Cobert's specifications.



TWO KNITTING HEADS enclosed in aluminum cabinet with provisions for "Lucite" panels to complete enclosure and permit humidity and temperature control within the machine. Mr. Cobert is shown beside the new equipment.

Construction. The entire frame of the Cobert knitter and many of the working parts are made of aluminum. Shafts and all wearing parts are made of metal to suit the application.

The entire machine, which may be made in any desired gauge, is enclosed in an aluminum cabinet which is functional as well as modern in appearance. The cabinet is made in sections, and aircraft type fasteners are employed to hold cabinet parts together and to permit easy and quick removal. Cabinet mountings are rubber, and flame-proof felt provides insulation to muffle and minimize transmitted and air-borne shock.

Internal Air Conditioning. The cabinet and "Lucite" panels to completely enclose the machine, will permit internal control of temperature and humidity of operating parts of the machine and the yarns used in knitting. A thermostatically controlled fan may be used to circulate air and aid in controlling temperature in the cabinet.

The enclosure is designed to keep out dirt and dust and to keep the stocking blanks clean and free from pull threads and damage caused by their becoming snagged on machine parts.

"Lucite" containers will receive completed stockings as they leave the knitting machine.

A removable oil pan is built into the body of the machine and is connected to a sump pan which is also removable to permit disposal

for Full-Fashioned Hosiery

Pilot model of electronically controlled, fully automatic hosiery machine is producing full-fashioned stockings for Beautiful Bryans, Inc.

Staff Prepared

of excess oil drippings. This feature prevents oil from seeping onto the floor around the machine, keeping the floor clean and dry.

Aluminum was used where possible to reduce weight, vibration, and wear. Friction is minimized by employing light-weight alloys to reduce inertia of parts in the reciprocating and oscillating motions throughout the machine. Also, this feature should help conserve power. Overall weight of the two heads in operation is 1600 pounds.

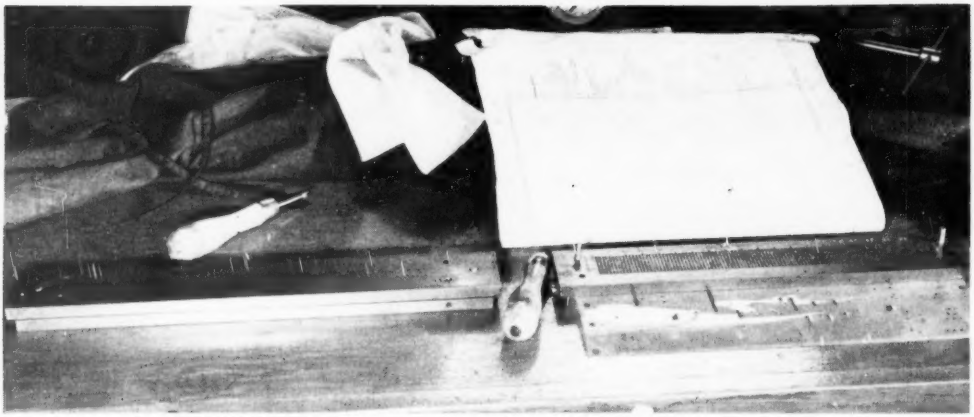
Cam followers and many other parts are made of laminated plastics.

Mr. Cobert is frank to state that he doesn't know how many machines one operator may tend inasmuch as the machine has not been on an active mass production schedule; however, definite labor savings should accrue in view of the fully automatic operation, he stated. The machine completes one set and starts another without any attention or manual operation.

To Change Size. Labor savings should be evident in that a size changing and hosiery length changing unit may be adjusted while the machine is running, at the same time giving the operator a visual indication of what length and size stocking is being knitted at all times.

Oftentimes operators and fixers change sizes and lengths on knitting machines and unwittingly attach tickets showing wrong size on the goods. The visual indicator of illuminated letters on the electric control panel shows the operator and supervisor what size and

ELECTRONIC CONTROL PANEL provides the sensing mechanism which transmits signals to operate the machine. 100 sensing fingers come in contact with their respective bars when a perforation appears in a transparent thermoplastic insulating pattern sheet. The sheet remains stationary while the fingers move downward and in contact with the surface of film which appears in two colors here. This mechanism is reminiscent of the self-player piano music roll which was in vogue several decades ago.



MARKS ON MASTER PATTERN sheet are transferred to the sheet of mylar by means of the punching apparatus, shown here. A machine for punching pattern sheets by keyboard operation may be available later.

length a battery of Cobert knitters is producing.

The Cobert knitter is equipped with eight yarn carriers per head, providing a range sufficient for any hosiery styles. The machine has been operated on single carrier work to date. Three-carrier knitting is said to be no problem, and no additional attachments are necessary for this type of knitting.

Production. Fully automatic features and increased speed of knitting permit production of approximately 24 stockings in eight hours on each head, according to Mr. Cobert's trial runs.

The electrical apparatus on this machine was designed with practical application in mind, is relatively simple, and is built to give long trouble-free service.

Safety Features. Many safety devices have been incorporated into the machine, with the aid of electrical principles. The safety measures were not made necessary by the electrical features—but they were made possible by the electrical circuits. For example, the welt turner is fully automatic and incorporates a safety feature, wherein the machine stops in the event that all coordinating parts are not aligned when the welt is to be transferred.

Another example is a correction device which automatically corrects the stroke so it will be synchronized with the electric course counter to assure that the laying-in operation of the carriers must always start on the correct side.

Coulier motion has a special safety device which will stop the machine should the Coulier mechanism get out of time.

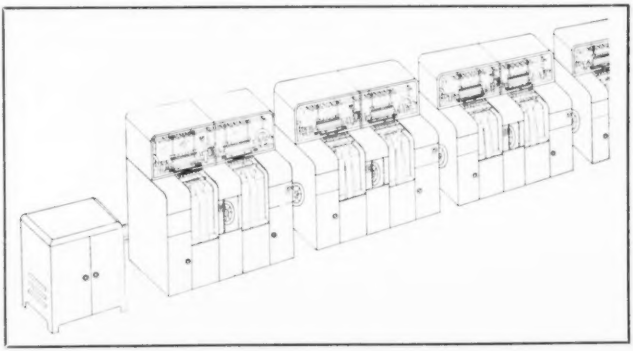
Several pilot lights are employed to permit visual detection should failure occur either in the electronic circuits or in the mechanical parts of the machine.

Another safety feature stops the machine if the picot bars are not locked in place properly. The picot bars go in and out of operation automatically.

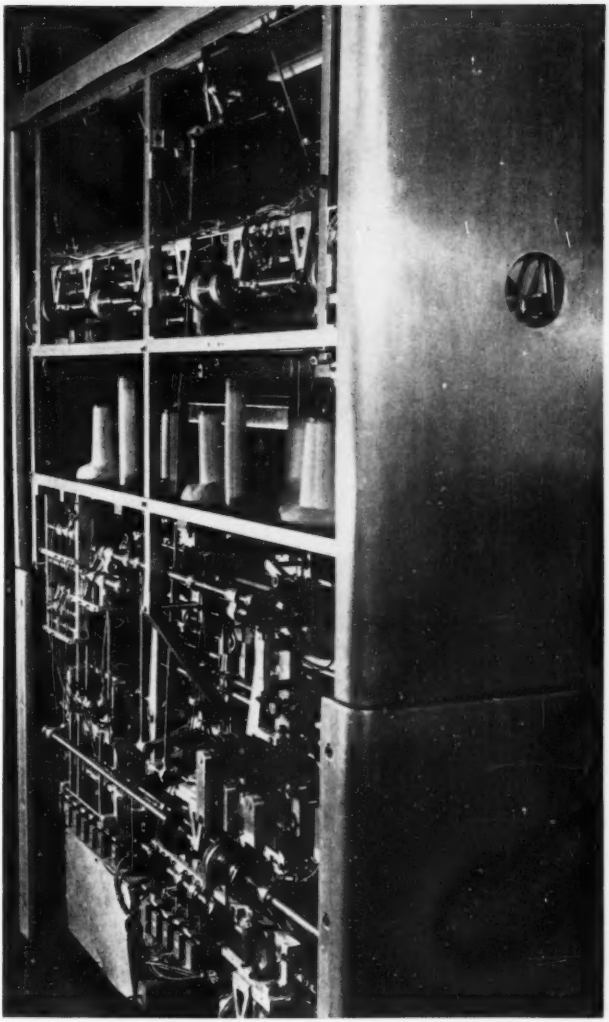
The Electronic Control Panel consists of a series of copper bars which control more than 100 circuits. The sensing device for transmitting signals to the machine has 100 sensing fingers which come in contact with their respective bars when a perforation appears in a transparent thermoplastic insulating pattern sheet (made of a material called mylar, recently developed by DuPont).

The entire cycle of knitting is controlled by perforations in a series of mylar sheets, one following the other. When it is necessary to change styles, only that portion of the mylar pattern sheet involved in the change is removed (such as leg change, heel change, etc.). Rarely, if ever, should all of the sheets have to be changed at one time. Operation of the control panel is reminiscent of the music

ORIGINAL CONCEPTION of appearance of a battery of Cobert knitters. This drawing was made August 23, 1947; and many details were changed during development of the machine.



ELECTRONIC AND ELECTRIC CONTROLS operate the machine automatically. Note arrangement of wiring and operating parts in this view which shows the rear of the Cobert knitter with the cabinet panel removed.



roll on an old-fashioned self-player piano, except that operation in this instance is electrical instead of pneumatic and the "music" sheet remains stationary while the sensing fingers "hunt" the perforations which constitute the pattern.

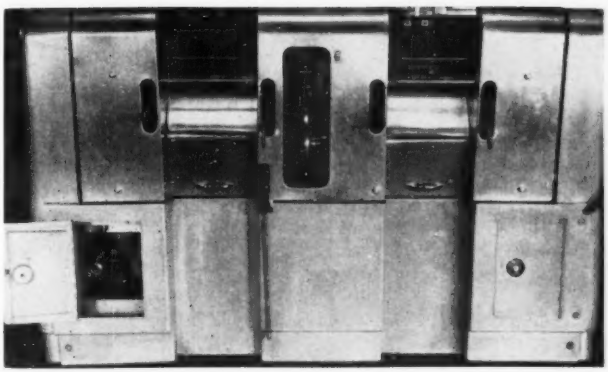
A simple method of setting up the knitting cycle has been devised, wherein a master pattern sheet is employed. The master pattern is laid out on graph paper made to exactly the same scale as the mylar pattern sheet. Then the marks on the master pattern sheet are transferred to the sheet of mylar by means of a punching apparatus made especially for this operation. A machine for punching pattern sheets by keyboard operation, similar to a typewriter, may be available later.

A quick check for accuracy may be easily made by comparing the master pattern with the mylar sheet by superimposing one on the other over an illuminated translucent glass.

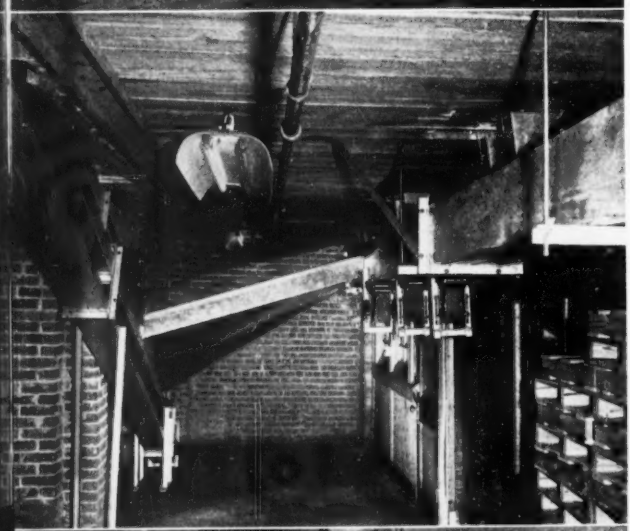
The new machine has been successfully operated at temperatures ranging from 65 F to over 100 F.

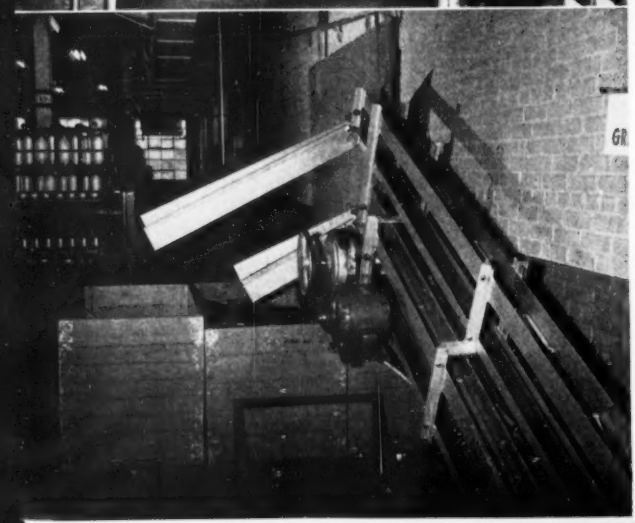
Lubrication. Entirely automatic lubrication is provided for all machine parts except the needles.

Maintenance. Any full-fashioned machine fixer should be able to maintain the machine without any trouble, provided he has some additional training in trouble-shooting on the electrical parts of the machine, Mr. Cobert stated. All of the electronic units are made with plug-in connections so maintenance personnel may remove each unit and replace it with a new one while the damaged unit is sent to the shop for repair.



ACCESS DOORS are provided in the cabinet to facilitate servicing various parts of the machine, and aircraft type fasteners are employed to permit quick and easy removal of cabinet parts.





Conveyor

How Conveyor Works

1 Winder operator adjusts funnel at end of winders (note notches for adjustment) according to size of bobbin being run. Bobbins drop off of winder conveyor belt, into funnel, and pass to . . . .

2 . . . . one of three conveyor belts under the funnel. Bobbins travel along conveyor until they reach the incline chute, drop by gravity onto receiving end of selected lifting conveyor belt. They are then lifted . . . . .

3 . . . . . to the spinning room two stories above, where they drop from the conveyor belt via chute into the box, according to size of bobbin. Thus bobbins pass from winders to floor below, are automatically separated, then lifted to spinning room, and assorted by size into specified boxes, "without being touched by human hand."

at Russell Assorts Bobbins

By G. C. WARREN
Superintendent of Maintenance
Russell Manufacturing Co.

A BOBBIN conveyor is a relatively modern device, but we have modified ours to make it even more modern. The new conveyor solves our problem of getting spinning bobbins from the winders back to the spinning room, with less labor, and at the same time automatically keeping them separated according to size.

Originally we had only one size spinning bobbin, and the conveyor handled the bobbins nicely; when we changed our spinning so that we now have 8″ wooden bobbins, and both 10″ and 12″ paper tubes, the old conveyor would transfer the bobbins but would not assort them.

With three sizes of bobbins, we found it necessary to add two men to haul the empties from the winding department to the spinning room (above) and separate them. Under the present arrangement, the conveyor releases three men for other duties (the old conveyor already had released one man).

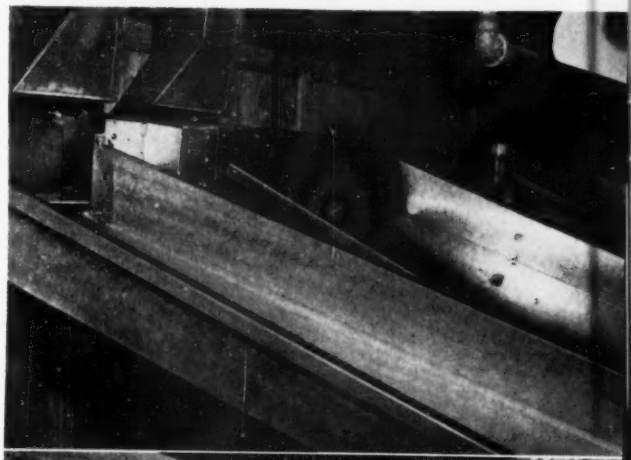
Description of Conveyor Which Handles and Separates Three Sizes of Bobbins. Under our winder room we have ample headroom for the conveyor, consisting of three separate belts. It is supported from the floor above (see Photo 2). As shown in Photo 1, the foot end of each winder is directly above the conveyor, and the metal funnels receive the empties as they drop from the conveyor belt on the winders.

A quick manual adjustment of the funnel directs the empty bobbins to the proper conveyor belt under them, depending on the size of the bobbin. The bobbins travel along the belt until they reach the inclined chute, whereupon they slide by gravity to the lifting conveyor and pass up to the spinning room two floors above.

Photo 3 shows the delivery end arrangement of the lifting conveyor and how the bobbins are dropped automatically into the boxes.

Photo 4 indicates how the funnels are set so that the empties from the winders fall onto the selected conveyor belt. Photo 5 is a close-up of the gravity chute where it joins the lifting conveyor on the receiving end.

In reality, this arrangement is simply three conveyors built as a unit, with one belt accommodating a particular size of bobbin, thus keeping them separated for their return trip to the spinning room. The conveyor was designed and fabricated in our plant.



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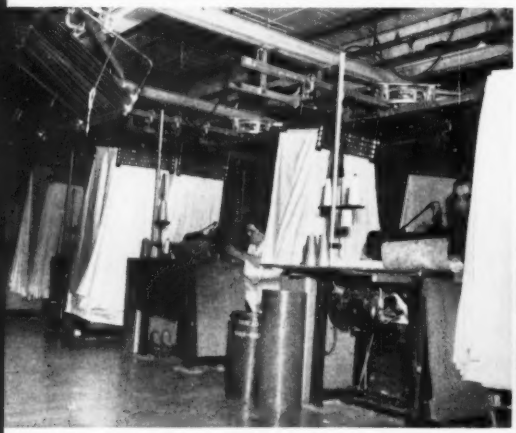
5

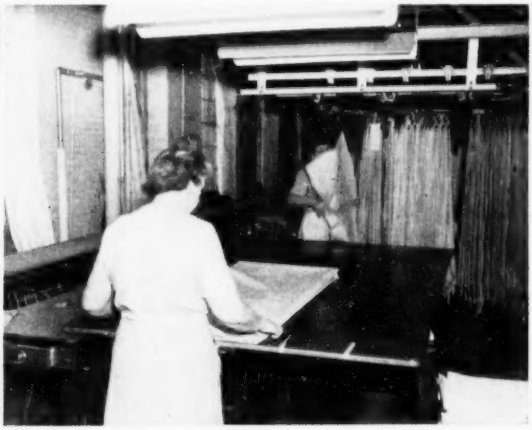
MAKING UP ORDERS FOR SHEETS (left photo). Operative in background at right makes up orders by combining different sets of pre-punched IBM cards to cover each operation through which the sheets or pillow cases will pass. Man in foreground picks out sets of cards needed to apply against cloth which must be torn for these orders. **Right photo:** Cloth torn into sheet lengths is hung onto racks of overhead monorail conveyor to begin its journey through the factory. Once a sheet is hung, it is not removed until it is completely sewn and ready for inspection. Racks hold 60 sheets. Each lot of cloth put into process is applied against specific orders.

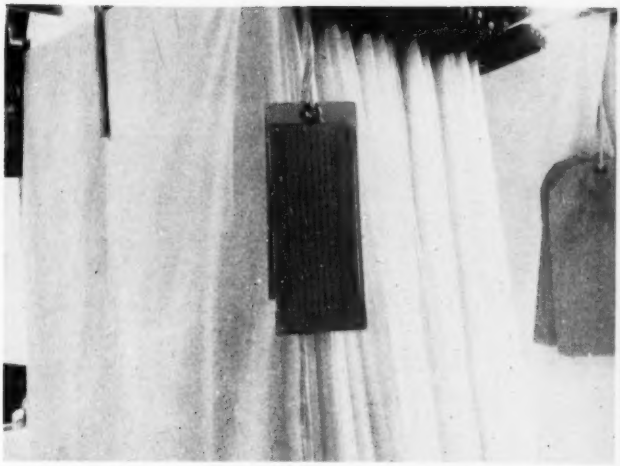
Wamsutta Simplifies Processing

★ Punched card accounting used to control production efficiently

SEWING OPERATION (left photo). When a rack of sheets is placed beside a sewing machine operator, the operations of narrow hemming, labeling with the Wamsutta Supercale label, wide hemming, and barring are performed. As previously mentioned, IBM card covering the operation is removed from the holder. At the end of the day operative turns in cards that she has collected for automatic computation of her pay on the IBM machines. **Right photo:** Sewn sheets are removed from conveyor racks, carefully inspected, folded, and placed on a conveyor for delivery to the pressing department at the other end of the room.







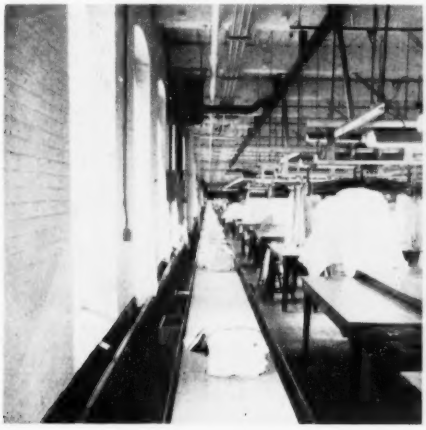
2 **TRANSPARENT CARD HOLDER (left photo)** accompanying this rack of sheets (hung for sewing) contains pre-punched IBM cards representing 12 or 24 sheets. At each step in the process of manufacture the girl performing the operation removes the front card that accounts for her particular job in the sequence. **Right photo:** Monorail supply man guides rack of sheets to the operation indicated by the front card in the holder (in this instance, the first sewing operation). Operative is shown here throwing one of the many switches in the overhead monorail conveyor system that permit placing of goods anywhere in the section as needed.

in Sheet Factory

By **EDWARD S. RUDNICK**
Director of Research
Wamsutta Mills

★ ***Overhead monorail and belt conveyors reduce material handling***

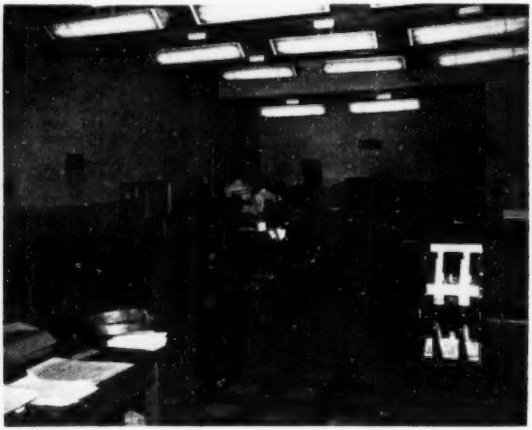
4 **ENDLESS CONVEYOR BELT (left photo)** carries sheets to other end of room for Pantex pressing operation. Bundles of sheets retain their identity. Note IBM cards, covering subsequent operations, attached to bundle in foreground. Since the order number moves with the card holder, it is a simple matter to trace any order through processing. **Right photo:** After sheets are pressed, bundles are placed on another conveyor belt along which the operations of labeling, tying, packaging in cellophane, and boxing are performed. Here an operative ties ribbons around sets of sheets preparatory to their being packaged in cellophane.



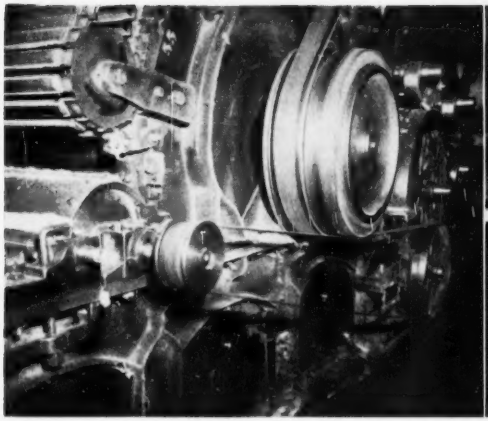
Wamsutta's Sheet Factory

(Continued from the preceding page)

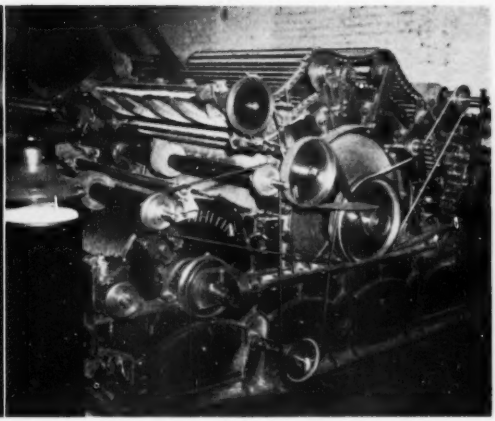
5 **BOXING SHEETS (left photo).** The last of the IBM cards is removed from the transparent holder when the operative places the sets of sheets in boxes. So that inventory of boxes might be kept at a minimum, box sizes have been standardized. Not shown in this photo are box making and printing machines which are provided to speed the handling of orders specifying special packaging. The majority of the operations in this department have been studied by Wamsutta's methods-time-measurement engineers and simplified for maximum operative efficiency. **Right photo:** Wamsutta's general manager William Oothout (left) discusses a problem with sheet factory superintendent Elmer Wright. In this well-lit and comfortable room they are surrounded by a maze of color in the form of Candy-Stripe, Frosty-Tone, Blossom-Tone, and Colored Scallop sheet and pillow cases.



6 **KEY PUNCH OPERATORS (left photo)** in the punched card accounting room in Wamsutta's main office building prepare the cards which control many of the cost, production, and sales activities—the sheet factory payroll and production system being only a part. **Right photo:** These are the machines that are the "brains" behind the sheet factory control system. Reduction of clerical operations and the necessary in-process inventory, less possibility of payroll errors, ease of tracing orders, and immediate availability of valuable information are some of the benefits derived.



DOFFER IS DRIVEN FROM LICKER-IN for slow grinding, as in carding, except that the belt is run open and a 6-in. pulley is used on the licker-in shaft.



GRINDER ROLL DRIVE is conventional except that larger pulleys are used on grinding roll shafts to reduce speed.

North Carolina yarn mill finds that

Slow Card Grinding Reduces Neps

Staff Interview

A NUMBER of card room overseers have been experimenting recently with "slow grinding," in which lower speeds are employed for the doffer during the grinding process. The converts are convinced that it does a far better job and keeps the card in better condition.

The belting of the card for grinding differs from the conventional method, but is no more difficult or time consuming, so there is no reason for not giving the slow grinding method a trial to see if it offers the advantages claimed by its proponents.

The belting arrangement used in a yarn mill in North Carolina, where the method has been successful, is shown in the illustrations. The card is stripped in the usual manner, and the drive belt is used to turn the cylinder in reverse direction, just as usual when grinding. However, instead of belting the doffer to the cylinder, the doffer is driven from the licker-in, just as in carding, except that the belt is not crossed but is run open to reverse the direction of drive.

Since the cylinder is running in reverse direction, the open belt will keep the doffer running in the same direction as when carding. In order that the belt between licker-in and doffer may run correctly when changed from crossed to open drive, the pulley on the licker-in is increased to 6 in. diameter.

With this arrangement, the doffer will turn at about 15 to 18 rpm instead of 170 to 180 rpm.

The speed of the grinders should also be reduced, and the change may be accomplished by increasing the pulley diameters from 3½ in. to 6 or 6½ in. to give a grinding roll speed of about 550 rpm. The grinding wheel should be adjusted to traverse 3 times per minute; that is, one and a half complete trips a minute.

Results. The overseer of carding in this mill states that results will begin to show after about three grindings of six or seven hours. In this instance a 20% reduction in neps is attributed directly to improved grinding, and the slow grinding method saves bearing wear and seems to be much safer than grinding with high doffer speeds.

The overseer also pointed out that many grinders make the serious mistake of adjusting the grinding rolls several times while the card is being ground. After grinding for about an hour, it is worthwhile to check to be sure the rolls are cutting properly. Then any necessary adjustment may be made and the grinder stands tightened. No further adjustments should be made during the grinding period.

Reviews Investigations Explorations Surveys Analyses

A Modified Pressley Test

The fourth article of a series dealing with research work and the practical application of research findings in the mill.

AMONG the variables which affect the reliability of a Pressley test are differences between clamps, operators, tensile testing machines, the wrench torques applied, spacings between clamps, variety of cotton tested, etc. These variations can be reduced by using the Pressley clamps on the Instron tester, provided a clamp spacing of 5 mm is used.

By R. K. TONER
Textile Research Institute
Princeton, N. J.

THE PRESSLEY Index is not a suitable measure of cotton strength when small differences between samples must be conclusively proved, but it may be modified to increase its usefulness.

There are numerous variables which affect the reliability of a Pressley test: differences between clamps, operators, tensile testing machines, the wrench torques applied in tightening the clamps, spacing between clamps, etc. In addition to the effect of each of these individual variables, combinations of these variables reduce the precision of test.

Furthermore, the effects vary in importance with the variety of cotton tested. It is possible to eliminate some of the uncertainty in the results by applying statistical methods to the data if sufficient test replications are performed, but in commercial work the required number of replications is seldom available.

Textile Research Institute, Princeton, New Jersey, has modified the Pressley test by attaching the Pressley clamps to an Instron Tensile Tester (Figs. 1 and 2). The Instron allows tests to be conducted over a wide range of constant rates of extension, and it provides an autographic, inertia-free record of the complete load-extension history. The freedom from inertia means that the final results will be slightly lower than Index values obtained from the standard Pressley instrument for the same type of cotton.

Although the Pressley test is designed to be performed at zero spacing between the clamps, absolutely zero spacing is not obtained. As the spacing is increased, there is a decrease in indicated strength. Data taken at 0-, 1.5-, and 5-mm spacings show that the magnitude of this decrease is strongly dependent upon the variety of cotton tested. As a result, the cotton with the highest indicated strength at a nominal spacing of zero millimeters may not occupy that position when the spacing is increased. This fact has considerable practical importance, since the Pressley Index is used as a means of ranking and comparing cottons.

A further matter of interest is that testing at increased clamp spacings tends to eliminate the differences found at zero spacing due to operator, clamp, and wrench torque. However, at increased spacings the Index is strongly affected by bundle weight; this effect is usually absent at zero spacing.

It is possible to increase the precision of the Pressley test by increasing the torque applied to the

clamp wrench, but this desirable effect occurs only in the torque range which may permanently damage the Pressley equipment. Within the practical range of wrench torques, it is not possible to increase the precision of test.

The autographic feature of the Instron Tensile Tester makes it possible to obtain and to analyze the complete load-extension curve. The characteristics of these load-extension curves may be used to determine whether or not the test has been satisfactory. Sudden drops in the middle of these curves and other erratic behavior in the region of ascending load (e.g., curves D and E in Fig. 3) are due to fiber slippage.

The Index obtained from such a test should be discarded, because slippage (the cause of the erratic behavior) means that the effective sample length is greater than expected; therefore, an abnormally low value results.

Curves which show large residual forces after break (e.g., curves C, D, E in Fig. 3) are due to failure of all the fibers to break at the same time. The amount of residual force after break may be used as an indication of the quality of any individual break. Some experience with different varities of cotton is desirable in interpreting these curves.

After many varieties of cottons were examined, it was found that for some cottons "good" curves were tall and narrow (e.g., curve A in Fig. 3), and for other cottons a "good" curve would be more spread out. In only one of the eight hundred samples broken in these experiments did the load curve drop immediately from breaking to zero force.

Bundle weight affects the character of the load-extension curves. A poor curve seldom occurred unless the bundle weight was low. If samples giving poor curves are rejected and if the Pressley Indexes for the remaining samples are plotted against bundle weight, a definite correlation results.

Figure 4 shows that a decrease in Index occurs with higher bundle weight. The indicated correlation

Figure 1. Instron Tensile Tester with Pressley clamps attached.

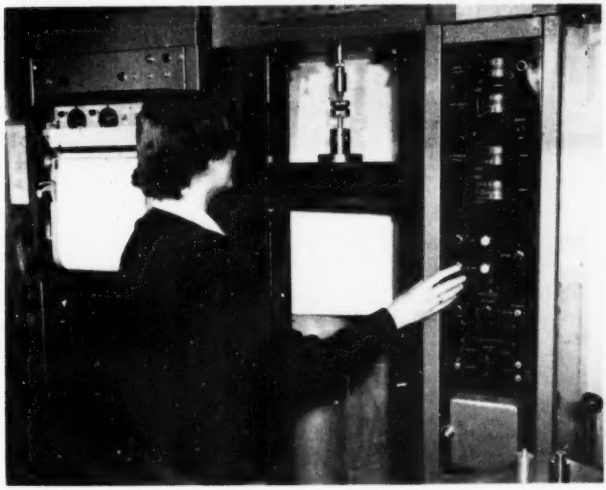


Figure 2. Close-up of Pressley clamps attached to Instron Tensile Tester.

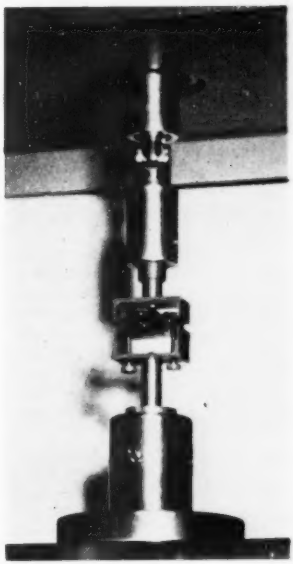


Figure 3. Sample load-extension curves for Pressley bundles broken on Instron Tensile Tester. Curve A—Good Quality; Curve B—Medium Quality; Curves C, D, E—Poor Quality.

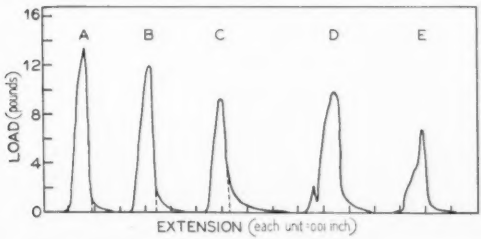
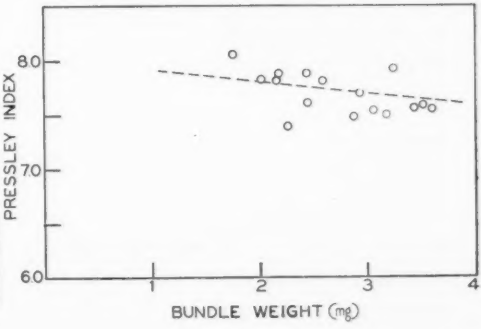


Figure 4. Effect of bundle weight on Pressley Index.



is destroyed when poor curves are included; thus there is a scientific basis for excluding abnormally low Index values in a set. The low value is very likely to be associated with a low bundle weight and a poor curve.

In summary, Textile Research Institute, by using the Pressley clamps on an Instron Tensile Tester, has determined that variations in test results due to changes in clamps, operator, wrench torque, etc. can be reduced or eliminated if a clamp spacing of 5 mm is used. If significant errors arising from different clamps, operators, machines, etc., are not present, differences between cottons of the order of five per cent should be apparent with the standard number of six replicates.

As the spacing between clamps is increased, the indicated Pressley strength is decreased; this decrease is more marked for some cottons than others.

Individual breaking tests may be evaluated by examination of the load-extension curves, poor tests resulting in low values of the Pressley Index and being frequent if the bundle weight is low. The value of the Pressley Index depends on bundle weight, a fact which cannot be ascertained without analysis of load-extension curves and subsequent elimination of the poor tests.

Thus a scientific basis has been provided for the usual empirical practice of discarding tests when the breaking force is low.

Note: The tests at different clamp spacings were suggested by J. K. Phillips in a Letter to the Editor of "Textile Research Journal" (May 1951).

Finishing Plant Capacity Is Adequate—NPA

The present capacity of the silk, cotton, and synthetic textile finishing industry is adequate for all foreseeable requirements from partial to full mobilization, A. Henry Thurston, director, Textile Division, National Production Authority, Department of Commerce, said recently.

Mr. Thurston based his conclusion on an analysis of present production in the bleaching, dyeing, roller printing, and finishing industries. The study made by the Textile Division covered the output of mills processing silk, cotton and rayon, acetate, nylon, and other synthetic fibers.

According to the Bureau of the Census, the finishing mills processed 9,328,681,000 yards of broad woven goods in 1950, the latest year for which reports are available. On the basis of supplemental information from trade sources the Textile Division calculated that the present mill capacity of the industry approximates 11,145,000,000 yards. This estimate, which is recognized to be conservative, is based on a two-shift, five-day week.

Plant capacity for the various processes in the finishing industry seems to be fairly well balanced, there being more capacity for dyeing than any other process. Bleaching facilities, however, run a close second, and the printing capacity, third.

The dyeing capacity, based on a 1950 production of 3,950,245,000 yards may be estimated at 4,570,000,000 yards. On the same basis the bleaching capacity is 4,426,000,000 yards (estimated from 3,466,795,000 yards production), and the printing capacity is 2,148,000,000 (1,911,641,000 yards production).

The present capacity of the industry will be sufficient only as long as present production patterns are maintained. A larger than normal proportionate demand for some special process, such as heat setting of nylon, probably would create a shortage despite the ample capacity of the industry generally, Mr. Thurston warned.

Dyeing and Crimping Fiber E

The properties of Fiber E, a new type of cellulose fiber developed by Du Pont and being made experimentally in continuous filament form only, are reported to be essentially the same as those of regular rayon yarn with the exception that Fiber E can be crimped when treated in a caustic solution.

Before Fiber E can be crimped, it is necessary that the yarn be absolutely free of tension and that one end of the yarn be free to shrink as in cut pile fabrics such as rugs and carpets, a recent issue of "The Technical Bulletin" states. In this type of application maximum crimp cannot be developed if the pile tufts are too close together. Some crimp or curl can be obtained in looped pile fabrics—the long loops will curl more than short ones when subjected to caustic soda treatment. Special effects can also be obtained on flat fabrics, provided that the construction is sufficiently open.

Methods for crimping Fiber E in fabric and skein forms are given in the Bulletin.

Fiber E can be dyed either before or after crimping with direct, developed, sulfur, and vat colors. It has the same affinity and fastness properties with these color types as regular continuous filament rayon yarns, the Du Pont laboratory has found.

Experience indicates that the most logical and successful method of dyeing Fiber E is with vat colors since they are not sensitive to caustic to any great degree, and the necessary alkalinity for applying vat dyes can be retained in the goods after crimping. A plant scale method for vat dyeing Fiber E is given.

Fast-to-light direct colors are also recommended for dyeing Fiber E scatter rugs (up to room size) crimped before or after dyeing.

Are These Conditions Prevalent in Your Plant?

1. Uncovered grease and oil containers.
2. Endeavoring to remedy a wear condition by using heavy oil.
3. Waste jamming guide rollers to the extent of ceasing rotation.
4. Excessive accumulation of foreign matter on open gears, chains, and cams.
5. Not removing relief plugs on anti-friction bearings, thus causing them to run hot, wear rapidly, and break seals.
6. Supply room dispensing an unrelated oil if the recommended product is exhausted.
7. Oilers never oil some parts because they do not know the part is on the machine.
8. Numerous parts being improperly oiled because oiler does not know oil hole is in part.
9. Oil holes stopped up with lint, making passage of oil either insufficient or impossible.
10. Oil being deposited in excessive quantities in areas which require no oil. Of course, a number of machine parts get oil through drippage and flow into other parts from these areas, but this practice is expensive and dangerous.
11. Grease fittings installed at such an angle that the grease gun nozzle cannot be placed squarely on fittings.
12. Oilers are not wiping grease from outside of fittings or from outside of parts.
13. Grease fittings loose in bearing housing.
14. Oilers lack understanding of importance of proper lubrication.
15. Improper attention given to storage of oily rags.
16. Fixers installing parts with oil hole on bottom side of part.
17. Fixers paying little or no attention to condition of grease and oil fittings.

...If so, consider instituting a

Lubrication Training Program

for management, supervisors, and oilers

BECAUSE OF the significance of the textile industry in the South and the numerous problems encountered in the maintenance of its machines, one entire morning of a recent ten-day lubrication engineering course presented at the Georgia Institute of Technology in Atlanta was devoted to the subject "Textile Machinery Lubrication." In fact, textile manufacturing was the only industry included in the curriculum.

Sponsored by the American Society of Lubrication Engineers and conducted by the School of Mechanical Engineering of the Engineering Extension Division at Georgia Tech, the course also provided training in such subjects as hydrodynamic theory, practical bearing design, hydrostatic theory, bearing materials, lubricants, lubricant dispensing, recent lubrication developments, lubricant technology, anti-friction bearing and gear lubrication, and plant organization for lubrication.

Of the forty students enrolled in the course, only two came from textile mills. Two others came from rayon producing plants. A much larger representation from the textile industry was expected, school officials stated, especially in light of the interest in lubrication currently displayed by so many mill managements.

Selected to present the phase on textile machinery lubrication was Clark Hubbard of Deering Milliken Industrial Engineering Department, Greenville, S. C. Said Mr. Hubbard in his introductory remarks, "I know some of you are wondering why an industrial engineer was chosen to conduct this discussion. It came about in this manner. Because lubrication is a vital part of machinery maintenance and because machinery maintenance is a factor which must be taken into consideration when setting up job assignments, the responsibility for establishing lubrication programs in the more than thirty Deering Milliken plants was delegated to the Industrial Engineering Department. I have had a hand in the development of these programs and the information which I bring to you is based upon that experience."

The approach to the lubrication problem at Deering Milliken is, we believe, unique. Consequently many of Mr. Hubbard's comments are presented here.

It was brought out during the discussion which followed the presentation that the training program for management, supervisors, fixers, and oilers brief-

ly described here requires from two to four hours, depending upon the size of the group and the amount of discussion.

Only one training program is required for each plant because an instruction manual can be prepared for use by supervisors in the training of new employees.

The proper listing of machine parts referred to on page 191 requires from four to five months, with one man working full time, if the mill is equipped with as many as 80 different types of machines. Conditions in each plant make it mandatory to prepare separate listings and recommendations. A must—properly list parts as oiler comes to them on the machine.

A special lubricant truck should be designed and built for lubrication personnel. Leather pouches should be provided for picks, wrenches, etc.

When testing to determine the kind of lubricant, amount, and frequency of application, it is best to have departmental supervisors participate. Let them do some testing too.

Select the least expensive lubricant to give optimum lubrication at maximum frequency.—Eds

By CLARK M. HUBBARD
Deering, Milliken & Co., Inc.

ALL TOO OFTEN in the textile industry, we have attempted to justify new equipment or new methods of production without first determining if we are obtaining the most out of what we have. This is particularly true of lubrication in that we look to mechanical applicators, central oil systems, or specially developed types of lubricants without determining if we are:

1. Maintaining our equipment mechanically.
2. Using correct type of lubricant.
3. Applying by proper method.
4. Applying at the proper frequency.

In order to best utilize our present personnel and the experience for optimum operation, we must continue to improve our training program in machinery maintenance of which lubrication is a vital part.

Little or no explanation of what makes up a good lubricant, where and how it should be applied, has been given to oiling personnel as well as supervision and management. Too, we have not selected properly qualified employees to lubricate the machinery.

In the past, complete reliance on methods of application and frequency of application has been left to the machinery manufacturers and oil companies. In some instances it was found that the type of lubricant recommended contained qualities not necessary to properly lubricate a part and the frequency of application was far too safe.

One reason for this may be that the supplier is playing it safe in case the consumer accidentally or purposely uses the lubricant for a more strenuous duty than normally intended for it. Thus, an understanding must be reached between the consumer and supplier so that the product will not be misapplied. In this way, the supplier will be able to make the most economical recommendation for a specific purpose. If this cooperation is established, both parties benefit; the supplier by being assured of relatively good performance of his product, and the consumer by having the most economical lubricant for the job.

Management must shoulder the burden on frequencies. Naturally, the supplier can recommend an average frequency, one that is relatively safe in most cases. Since there are so many variables in frequency determination, it is not feasible for the supplier to determine these factors, find out the ones having the most influence for each case, and thereby enabling him to make a better frequency determination. Who can better do this job than the people who work with the machine day in and day out, year in and year out?

Each plant must decide if it is economically feasible to make this study of frequencies.

We must, therefore, establish a simple and complete training program for the oiler, through top management.

The following discussion covers thoughts that can be used in developing a suitable training program for your plant:

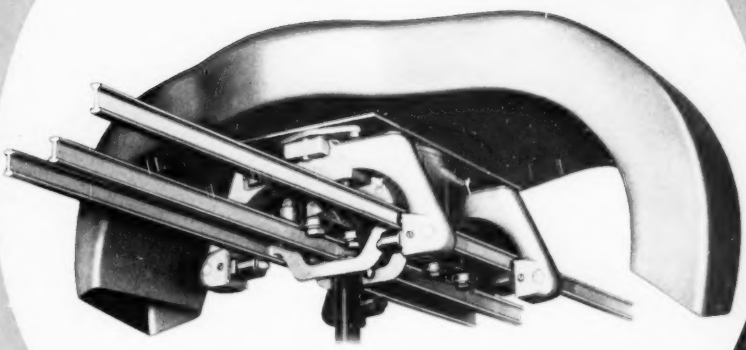
The Manufacture of Lubricants

Oil is found under the ground in the holes in spongy rocks or sands. The raw oil, known as crude oil, is not the same in various places. Thus, the crude oil found in Texas is not the same as that found in Pennsylvania. [A simple sketch showing diagrammatically how crude oil is refined serves as an excellent training aid for this phase of the program. Lubricant supplier will usually provide information from which an easily understood flow chart can be made for each trainee.]

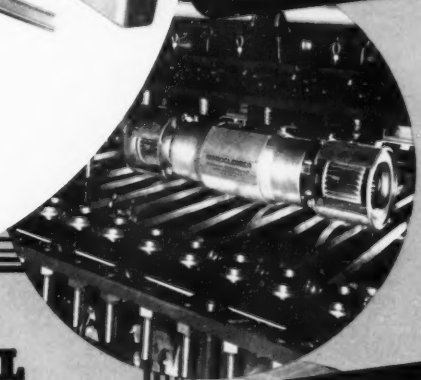
Oil is removed from the ground by drilling a hole into the pocket of crude oil and pumping it out into a separator. The separator heats the oil and removes some of the gasoline and natural gas from the crude oil. Then the oil is moved by pipe-lines, ship, or railroad to storage tanks at the oil refinery.

Refining. At the refinery, the crude oil is separated into gasoline, naphtha, kerosene, fuel oil, asphalt, lubricating oils, and wax. This is done by a distilling process. First, the crude oil is pumped into a closed container. Then heat is applied to the container until the various products in the crude oil vaporize. The solvent refining process is also used. Selective sol-

TRI-RAIL CLEANER



UNDERFRAME CLEANER



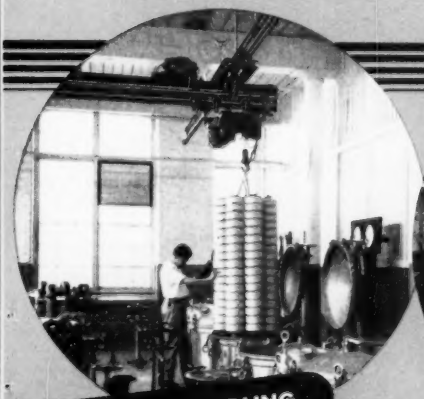
AMERICAN MONORAIL

Headquarters for

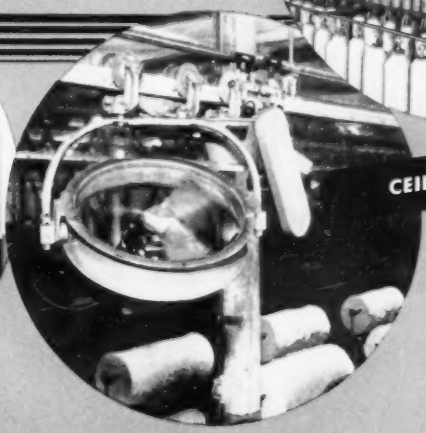
AUTOMATIC CLEANING

OVERHEAD HANDLING

STANDARD CLEANER



OVERHEAD HANDLING



CEILING CLEANER

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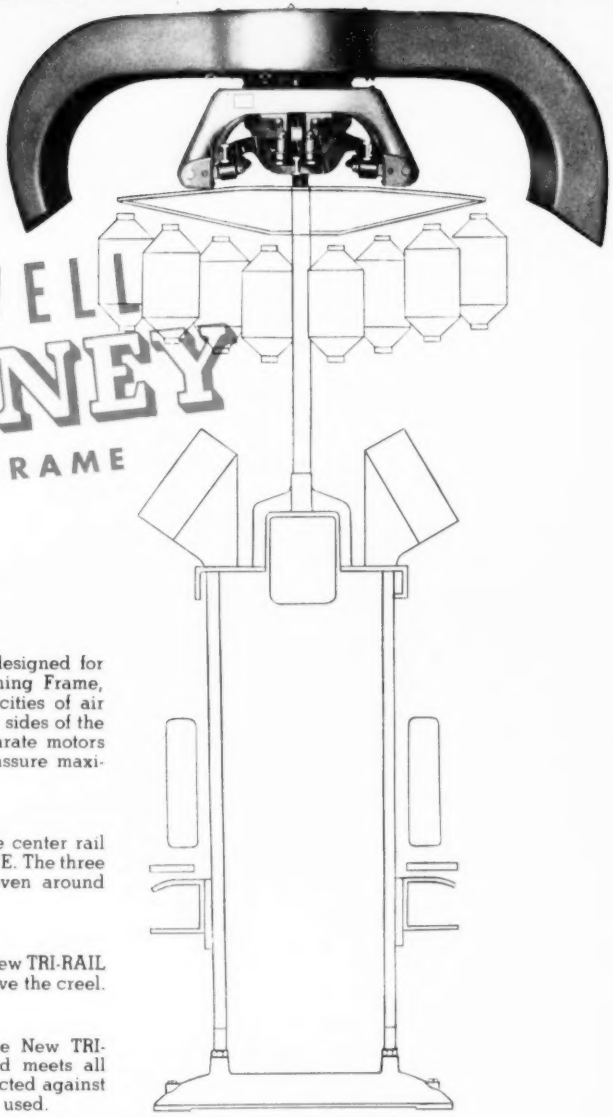
THE AMERICAN MONORAIL CO. 13107 Athens Ave., Cleveland 7, Ohio

THE NEW TRI-RAIL CLEANER

especially designed for the

NEW

SACO-LOWELL GWALTNEY SPINNING FRAME



ADVANTAGES

FUNCTIONAL DESIGN

The New TRI-RAIL Cleaner, especially designed for the new Saco-Lowell GWALTNEY Spinning Frame, delivers pre-controlled and varying velocities of air at regular intervals down and across both sides of the frame to prevent lint accumulation. Separate motors for cleaning and to propel the cleaner assure maximum efficiency.

STABILIZED TRAVEL

The New TRI-RAIL Cleaner travels on the center rail ALL WHEELS IN LINE-for IN-LINE DRIVE. The three rails assure uniform stability of travel even around curves of short (2 foot) radius.

LOW HEADROOM

Due to extremely compact assembly, the New TRI-RAIL Cleaner can operate within 15 inches above the creel.

SAFETY FEATURES

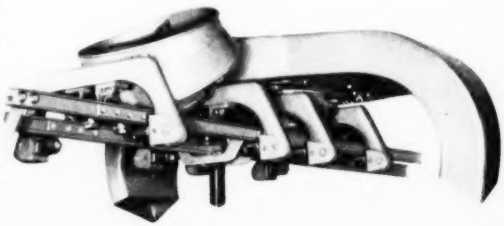
Operating from low 50 volt current, the New TRI-RAIL Cleaner requires no shielding and meets all insurance requirements. Motors are protected against overload. No delicate electrical parts are used.

RUGGED CONSTRUCTION

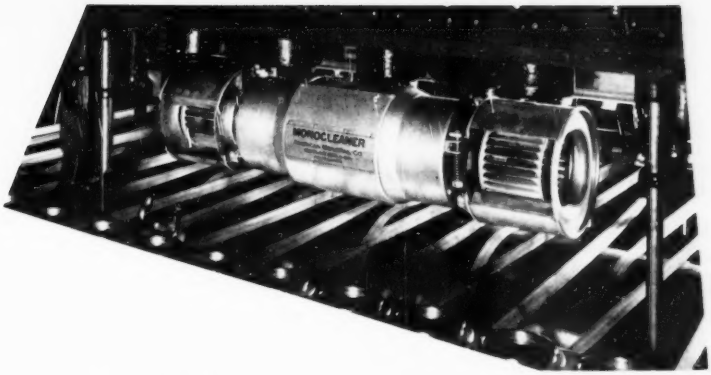
The three rails are of high carbon-manganese steel. Wheels with precision bearings and the side rollers are of special alloy heat-treated for long life. All parts are easily accessible to assure extremely low maintenance cost.

CEILING CLEANER ADDED

A powerful airfoil propeller fan can easily be added to the New TRI-RAIL Cleaner to send a high velocity column of air upward against the ceiling to keep ceilings clean.



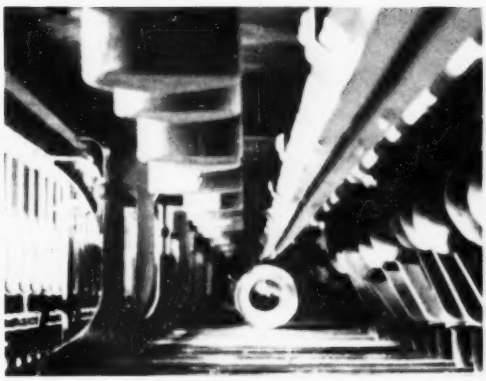
UNDERFRAME CLEANER



BEFORE

The unretouched photos reproduced here were made in a mill running low number yarns for sheeting and drills. The illustration represents normal operating conditions. Lint has formed into streamers ready to fall and be carried by the tapes toward the spindles. In this mill the frames required cleaning by air hose every four hours.

AFTER



Here is shown the under parts of the frame which had operated for thirty days with the American MonoRail Underframe Cleaner installed. No hand cleaning or "blow-down" was required. The strong jet like spirals of air, swirling in opposing directions, reached every point under the greenboard and inside the spindles.

ADVANTAGES OF UNDERFRAME CLEANING

The slowly circulating air jets running in opposing spirals and traveling back and forth beneath the greenboard or deck, prevent accumulation of fluffy lint on the under parts of the spinning frame. Lint is blown from under the frame including the floor, to gather in the aisle as a "windrow" for easy sweeping.

SAVING IN CLEANING LABOR

Substantial savings have been made under varying conditions in mills where the underframe cleaners have operated. A reduction of 80% in "blow-down" time has been reported.

IMPROVED YARN PRODUCTION

Clean frames keep spindles at work spinning clean yarn. With a decrease in ends-down due to heavy fly, more and better yarn is produced with fewer slubs and gouts. One mill claims a 75% cleaner yarn with underframe cleaners on frames working on filling yarn.

BETTER QUALITY CLOTH

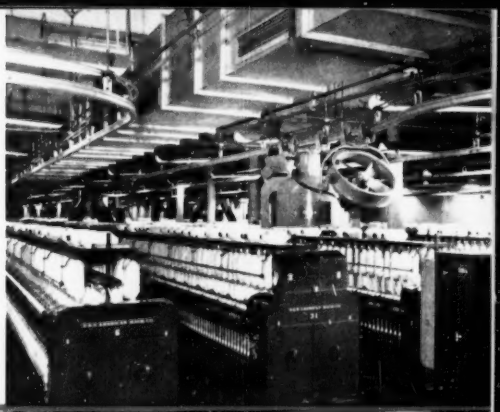
Clean yarn not only runs smoothly through winders and spoolers showing a decrease in breakbacks, but also improves production on the looms. Several large yardage tests with and without underframe cleaning indicate clearly a 30% reduction in seconds from looms running cleaned filling yarn.

REDUCED FIRE HAZARD

In addition to quality improvement from cleaner yarn —savings in cleaning labor—reduction of down time for cleaning, the constant removal of fluffy lint helps to prevent the possibility of flash fires and therefore eliminates much of the common fire hazard in the mill.

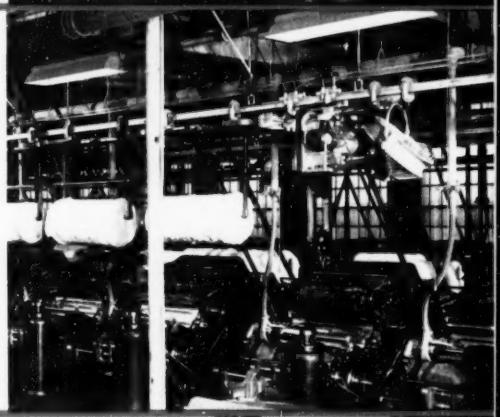
OVERHEAD CLEANING

With a controlled, swirling column of air travelling at regular intervals over spinning, winding and twisting machines lint cannot accumulate. The addition of an airfoil propeller fan directing a high velocity column of air upwards against the ceiling keeps this part of a room clean. Cleaning costs are thereby reduced and yarn production greatly improved.



LAP HANDLING

Distribution of laps from pickers to cards can now be maintained on a completely automatic system. This includes lifting the lap from the picker to overhead MonoRail Carriers, weighing within close tolerance, signalling the picker tender for adjustment of his machines, and delivery of laps to the cards with selective deposit at each machine. Many variations to meet special conditions are available.



BEAM HANDLING

Throughout the mill heavy beams of all types are more economically handled on MonoRail than by any other means. Overhead Systems, whether completely automatic or simply hand pushed, reduce handling labor and eliminate damage to yarn or cloth. MonoRail systems are easily installed to release valuable floor area for production machines.

Write for bulletins covering above subjects or for free consultation with experienced engineers.

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vents are introduced to the crude at various points in the product flow, depending on what end product is desired. The solvent and end product are then separated, leaving the desired product, and the solvent is used again and again. The vapors of the gasoline, naphtha, kerosene, and fuel oil are piped through condenser coils where they are cooled and become liquid.

The remaining oil is reheated and vaporized and separated into heavy and light grades. These are condensed and piped to the Furfural-Propane Deasphalter where the asphalt is removed from the oils. The oils are then cooled in a refrigerating tower until the wax in the oils begins to form crystals. Then a solvent is added to the oil and the wax is removed by filtering the oil through heavy canvas. The solvents are removed by passing the oils over special clay beds which absorb the solvents leaving the refined oils.

The oils are then pumped into blending storage tanks. These oils are not necessarily the final lubricating oils but are oils which are blended together in various quantities to make lubricating oils.

Additives. In the process of blending oils to make lubricating oils, special chemical additives are put into the oils for various purposes. [At this point it is helpful to distribute to trainees the sketch shown in Fig. 1.] These additives and their effect on the oils follow:

1. Lard Oil—this makes an oil feel slicker than usual, giving it extra oiliness.

2. Soap—a metallic soap such as is used in grease is added to the oil to thicken it so it will not run out of open bearings or off open surfaces.

3. Paratac—a molasses-like substance that makes oils stringy and rubbery. This is used to prevent oil leakage and slinging from open surfaces.

4. Extreme pressure — compounds of lead, sulfur, or chlorine are mixed with the oil to provide a film between surfaces when parts are heavily loaded and the oil is squeezed out between the surfaces.

5. Inhibitors—chemicals put into the oils to prevent: (a) rust of parts; (b) foaming of the oil; and (c) oxidation of the oil (a rusting of the oil by the air).

6. Detergents—chemicals put into oils to maintain clean surfaces. These chemicals surround particles of carbon and metal and carry them away from the surface being lubricated.

Additive oils have a definite place in industry, but caution should be exerted in being sure that the oil has the right kind of additive for a particular use—no more, no less.

There are many kinds of oils made, and there appears to be no need for a mill to mix oils or greases to get the proper lubricant for a machine part.

Greases are a mixture of a metallic soap and oil. Metallic soaps are made by boiling the glycerin from fatty oils such as hog fat, cattle fat, cotton seed oil, castor oil, fish oil, and cocoanut oil. The deglycinerated fat is then mixed with a metal such as aluminum, calcium, sodium, barium, and lithium. Thus, each of the greases varies with its base fat and the type of metal with which it is mixed.

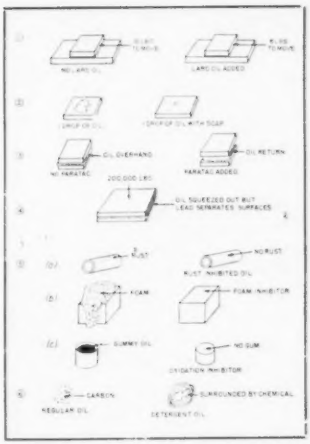


FIG. 1. Graphic presentation of effect of certain additives on lubricating oils.

Principles of Machinery Lubrication

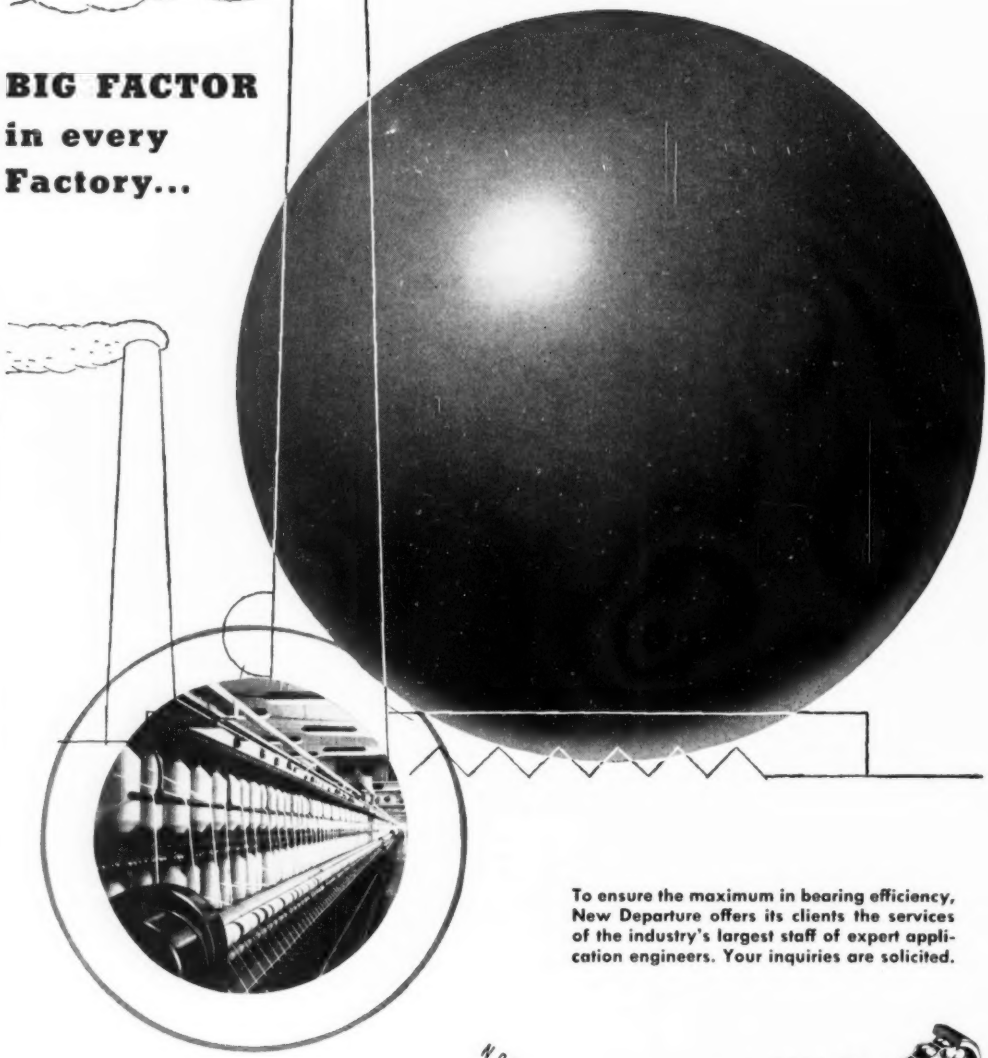
All machinery is made up of three basic types of parts. These are gears, cams, and sliding surfaces.

Friction is a most important factor in our world today. Friction exists within all solids, liquids, and vapor. We cannot hope to eliminate it but we can strive to reduce it to a practical minimum. Solid friction, resulting from metal to metal contact, is greater than liquid or vapor friction. When a part is lubricated, the lubricant prevents the two metal parts from contacting each other. Thus, liquid friction replaces solid friction. Where there is friction there is always some heat generated.

A perfectly smooth surface would be frictionless, but such does not exist. No matter how smooth a surface may feel and look, it is made up of a series of hills and valleys. The hills and valleys are caused by the type of tool and machine on which a part is made. An illustration of the types of surface finishes made by various machines on parts appears in Fig. 2. Most of the textile machine gears, cams, and bearings are in the first four classes. Therefore, the parts have a rather poor surface finish and large clearances.

Hydrodynamic Lubrication. There are two types of bearing lubrication. One is known as hydrodynamic lubrication. This means that the shaft is carried by the lubricant (see Fig. 3). When the shaft is not moving, it rests on the bearing. As the shaft begins to move it starts climbing up the side of the bearing. The speed of the shaft causes the oil to form a wedge which forces the shaft away from the edge of the bearing and prevents metal to metal contact. This is ideal lubrication. However, this can only be obtained by using bearings which cannot leak and which have a sufficient shaft speed to form an oil wedge.

BIG FACTOR in every Factory...



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The Great Ball of New Departure is your guide to *top quality* in ball bearings—*top service* in ball bearing application. That's why New Departures are such a tremendous factor in the textile industry—reducing costs as they reduce friction. Machines start more easily—carry their loads more efficiently—preserve their precision through a longer useful life—because of New Departure's balanced design.

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Boundary Lubrication. The second type is known as boundary lubrication. This occurs where the bearings can leak and the speed is slow. Most textile bearings have boundary lubrication. Only a thin layer of lubricant prevents the shaft from rubbing the bearing. This thin layer is broken by the load at times, and the hills of the shaft and bearing are welded together by the heat from friction. The driving force is so great that the welded hill of the bearing or shaft pulls some of the metal out of the other part.

To summarize, in the lubrication of textile machinery in general the bearings have poor surface finish, large clearances, open ends, slow speed, heavy loads, and have boundary lubrication. These are the most difficult conditions for proper lubrication.

Cohesion and Adhesion. Two very important properties of a lubricant are known as cohesion and adhesion. Cohesion is the property which makes a lubricant stay together. Adhesion is the property which makes a lubricant adhere to a surface. In a lubricant a balance between these two properties must be maintained.

In the lubrication of textile machinery, the lubricant must have a maximum of each of these properties to prevent as far as possible slinging, splashing, and leaking of the lubricant.

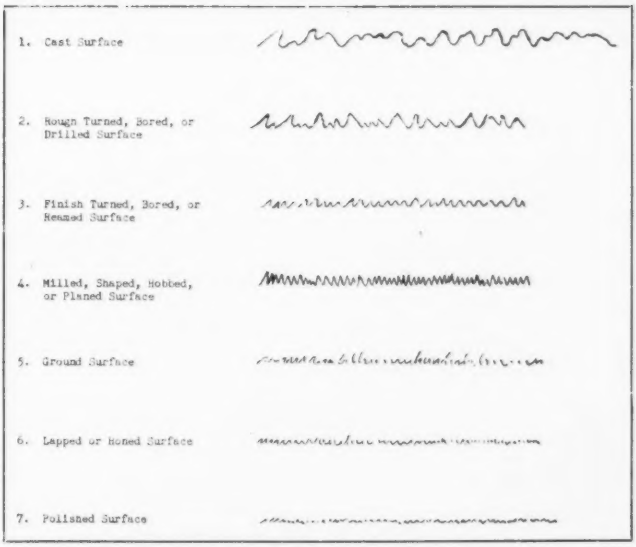

1. Cast Surface
2. Rough Turned, Bored, or Drilled Surface
3. Finish Turned, Bored, or Reamed Surface
4. Milled, Shaped, Hobbed, or Planed Surface
5. Ground Surface
6. Lapped or Honed Surface
7. Polished Surface

FIG. 2. TYPES OF SURFACE FINISHES made by various machines on metal parts. This illustration usually brings forth considerable discussion from oilers and maintenance men.

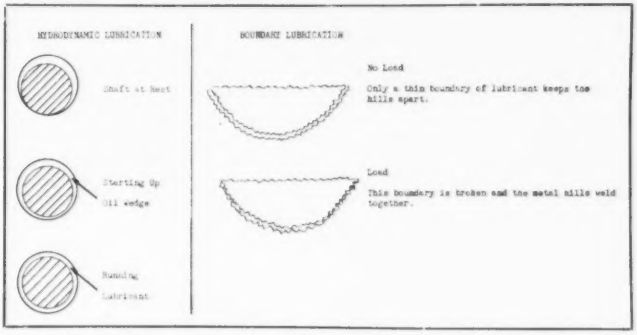


FIG. 3. Graphic presentation of the two types of bearing lubrication—hydrodynamic and boundary.

The Measurement of Lubricants

For Oils. The following terms are used in the measurement of oils:

Viscosity—a measure of the "fluidity" of the oil. Heavy oils have a high viscosity. Light oils have a low viscosity. Viscosity is the time required for a measured quantity of oil to flow through a standard size orifice at a standard temperature. Viscosity on the Universal Saybolt System is measured in seconds at 100 F and 210 F, in accordance with ASTM procedure. Some relative viscosities for example are:

Spindle Oil	80 seconds at 100 F
Comb Box Oil	300 seconds at 100 F
Loom Oil	750 seconds at 100 F

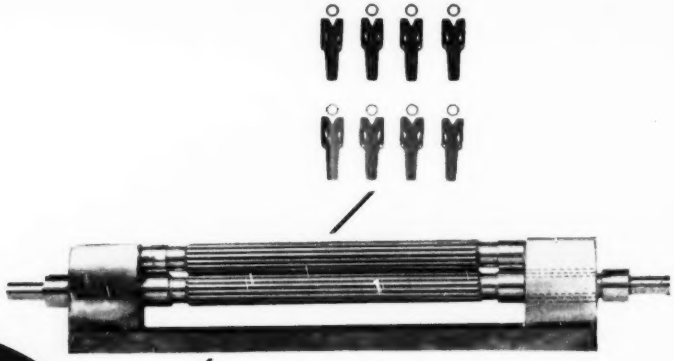
Viscosity Index—a comparative measure of the change in an oil's viscosity as it is heated. This factor is important in selection of oils when wide temperature variations may exist.

Flash Point and Fire Point—these are determined by heating the oil in an open cup and passing a flame over the cup frequently. When the vapors from the oil catch fire and flash, the oil temperature is recorded as the flash point. When the oil catches fire, this temperature of the oil is the fire point. Important where extremely high temperatures exist.

Pour Point—the temperature at which the oil ceases to pour. It is determined by chilling the oil until it ceases to flow.

Film Strength—the greatest weight the film of an oil will hold without breaking. On looms, for example, where shock loads occur, the film strength of the lubricant is of great importance.

For Greases. The following terms are used in the measure-



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One representative Southern mill cut its labor costs 57% when they installed Ideal High Speed Drawing Rolls. The same mill reduced sliver variation from 33% to 15% and roving variation from 42% to 36%. Floor space required for drawing frames was reduced from 12,500 sq. ft. to 5,800 sq. ft.

These impressive figures are matched by reports from other mills . . . and exceeded in many cases. Increased production, improved quality, reduced operating and maintenance labor costs, and lower power consumption are universal. The benefits you get from Ideal Drawing Rolls are so great that it will pay you handsomely to get the full story on Ideal High Speed Drawing Rolls before you replace a single set of wornout rolls on your drawing frames. Write or call for the facts.

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Ideal Industries, Inc.
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ment of greases:

Consistency—the thickness or consistency of grease is rated in numbers (for example, #0, #1, #2, #3, etc.). This test consists of dropping a dart into a given volume of grease and measuring the penetration of the dart into the grease. Thus, the thicker the grease the less the penetration and the higher the consistency number.

Dropping Point—the temperature at which the grease becomes liquid and will drop is known as the dropping point.

Solubility—the degree to which a grease will mix with water. The test consists of putting a grease sample and water into a container and trying to make them mix by shaking the container.

Lubricant Selection for Machine Elements

Many times departmental supervision will request certain types of lubricants to overcome a mechanical malpractice and in a sense is only prolonging an expensive overhaul thus defeating a less costly preventive maintenance program. Fig. 4 is an example of data that may be accumulated to assist, with an oil company's engineer, in selecting or determining the proper lubricant. This example does not correct for poor machinery maintenance which must be coordinated with any changes in lubricant. In working with a supplier in the use of his products, do not let salesmanship overshadow proper engineering.

The amount of lubricant required is easily determined by observation. When an oil hole is full, any additional amount would serve no useful purpose at that time and will run out of bearing, over casing, onto floor, and on cloth.

The frequency of application is

Lubricant Selection for Machine Elements

I. Consideration of conditions—

A. What type of surface finish and fit are the parts:

Rough turned, drilled, bored	(.010" av. clearance)
Finish turned, reamed	(.005" av. clearance)
Ground	(.001" av. clearance)
Lapped	(.0005" av. clearance)
Polished	(.00025 av. clearance)

B. Is the bearing a sealed, open, anti-friction or plain.

C. Does the bearing have a reservoir for the lubricant.

Oil cup	Grease Fitting
Bottle oiler	Grease cup
Ring splash	Grease compression cup
Wick feed cup	
Central System	

D. What kind of load does the bearing have:

Heavy	Impact
Light	

E. How does the shaft rotate:
- High speed (1000 to 6000 rpm)
- Low speed (0 to 1000 rpm)

F. Is the bearing subjected to high temperature (over 150 F)

G. Contamination
1. Lint
2. Dirt and Dust
3. Water

H. Limiting Factors
1. Odor
2. Leakage
3. Color
4. Damage to processed material

II. Methods of application

A. Oil
- Open
- Drilled hole
- Oil cup
- Brush or mop

B. Grease
- Pressure Fittings
- Open
- Compression cups
- Brush or mop

C. Central system

III. Amount of lubricant and frequency of application

A. Determine by inspection and testing

FIG. 4. Form used when making lubricant selection for machine elements. It is recommended that an oil company lubrication engineer be called in to assist in gathering this information.

General Instructions for Weave Room Lubricating Personnel

1. Equipment

(a) Pump type oil can with 16" rigid seamless brass spout.

(b) Pump type oil can with 7" spout with nozzle.

(c) Grease gun—hand operated lever-type gun with suitable extension.

(d) One or more 3" paint brushes and can for oil.

(e) One 8" right angle pick.

(f) One 8" straight pick.

(g) One 15" right angle pick.

(h) Wrench or wrenches to fit grease and oil fittings.

(i) Supply of grease and oil fittings.

(j) Supply of rags.

(k) Metal can with cover for used oily rags.

(l) Suitable cans for storage of limited quantities of grease and oil. Covers should be used on these cans.

2. Storage

(a) Keep all equipment and lubricants in the cabinet provided for storage of such; and keep doors and drawers closed to prevent collection of lint and other foreign matter.

(b) Keep cans which contain grease and oil covered when not in use, and keep outside of containers clean.

(c) Do not store oily rags inside the cabinet. This constitutes a fire hazard if not carefully followed.

(d) Do not keep an excess supply of lubricants in the production department.

(e) Avoid spilling oil or grease in the cabinet, on the floor, or on the machinery. Wipe up all oil

(*Continued on page 293*)

J. W. Mitchell

C. R. Mitchell

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Southern Textile Exposition

BOOTH NUMBER

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Examine the other Rhoads' Textile Leathers: Straight Check Straps, Harness and Jack Straps, Lug and Holdup Straps, Spindle and Block Bumpers . . . all made from selected leathers and "custom-manufactured" for your textile operations. There will also be displayed Tannate Flat Leather Belting—the belt that is "custom-engineered" from raw hide to finished belt.

And, to assist you with your own particular textile problems—without obligation—there will be present such well-known Rhoads sales representatives as: Bob Mitchell, Tom Hoffman, Warren Mitchell, Sid Jay, and Lou Schwoebel. Also present will be Richard H. Rhoads, partner and a member of the family who founded J. E. Rhoads & Sons. So, if you're going to the Southern Textile Exposition, please look for Rhoads Booth 456 . . . and feel free to come in and discuss your problems.

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Ask for this handy folder which contains specifications for all Rhoads Industrial Leathers including the variety of textile leathers.

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determined by testing through the following means: (1) wipe test; (2) heat generation; (3) examination of reserve supply; (4) examination for products of wear (metal chips).

In any case, the supply should be exhausted before relubricating or where shafting and bearings will not operate for the next twenty-four-hour period. This is known as the *maximum frequency*, and a more practical frequency should be used for the sake of safety. The usual time element is determined in eight hours, twenty-four, bi-weekly, and so on or by the part in the motion requiring the most frequent application. Other factors are production schedules involving doffing, cleaning, overhauling, and other preventive maintenance.

A companion to this step is the proper listing and locating of parts requiring lubrication (see Fig. 5). In listing show the part name or any specific identification of part, type bearing or surface to be lubricated, means of applying (mechanical, open, oil hole, grease cup, etc.), method of dispensing lubricant.

Supplementing these detailed lubrication instructions for each type of machine in the mill is a set of general instructions for lubrication personnel in each of the various departments. [Typical of the thoroughness with which these are prepared is the one for weave room oilers beginning at the bottom of page 189.]

Textile Students Pioneer on T-V

Senior students in the textile technology department at State University Institute, Utica, N. Y., recently completed a series of textile demonstrations as part of the "coffee time with Betty and Dave" show telecast by WKTV, Utica.

These demonstrations were designed to interest and appeal to housewives. They showed how fabrics are tested for flammability, how heat affects rayon and acetate fabrics, how soaps and detergents act in laundering. They also demonstrated the fastness of vat dyes, uses of the new synthetic fibers, the care of carpets, and how fabric styles are developed and woven.

In addition, the laboratory facilities and services available at SUI were explained and the opportunities for young men and women to prepare for technical careers in the textile field were stressed.

FIG. 5. LUBRICATION CHART for two machines in an opening room. Note that each part to be lubricated is described in such a way that there is no doubt as to how a particular bearing is to be lubricated. Also, chart is arranged so that oiler starts on right side and works around to left. It was found in one mill where more general lubricant recommendations were utilized that oilers were missing as many as 20% of the points requiring lubrication. The columns "Product Recommended" and "Frequency" are not filled in here for obvious reasons. Note key to abbreviations at lower right.

OPENING ROOM

Machine and Component Parts	Type of Bearing	Method of Lubrication	Product Recommended	Frequency
FEEDER, SACO LOWELL F-5, 8 UNITS:				
Right Hand Side:				
*Bottom Apron Roll Bearing (driven)	P	H/O		
*Bottom Apron Roll Bearing (guide)	P	H/O		
*Bottom Apron Roll Bearing (driver)	P	H/O		
Bottom Apron Roll Chain				
Lifting Apron Roll Bearing (driven)	P	H/O		
Lifting Apron Roll Bearing (guide) 3	P	H/O		
Lifting Apron Roll Bearing (driver)	P	H/O		
Hack Comb Shaft Bearing	P	H/O		
Eccentric Arm Bearing (upper)	A/F	P/F		
Eccentric Arm Bearing (lower)	A/F	P/F		
Eccentric Arm Bearing (stud)		P/F		
Doffer Cylinder Bearing	P	H/O		
Left Hand Side:				
Doffer Cylinder Bearing	P	H/O		
Lifting Apron Roll Bearing (driver)	P	H/O		
Pulley Stud and Gear	P	H/O		
Lifting Apron Roll Bearings (guide) 3	P	H/O		
Hack Comb Shaft Bearing	P	H/O		
Lifting Apron Roll Bearing (driven)	P	H/O		
*Bottom Apron Roll Bearing (driver)	P	H/O		
*Bottom Apron Roll Bearing (guide)	P	H/O		
*Bottom Apron Roll Bearing Driven	P	H/O		
*Note: Units No. 2 and No. 4 do not utilize these parts.				
CONVEYOR, KITSON:				
Right Hand Side:				
Drive Pulley Shaft Bearing (2)	P	H/O		
Bevel Gear Train (shielded)		H/O		
Conveyor Belt Drive Pulley Bearing	P	H/O		
Belt Guide Roll Bearings (5)	P	H/O		
Conveyor Belt Driven Pulley Bearing	P	H/O		
Left Hand Side:				
Conveyor Belt Driven Pulley Bearing	P	H/O		
Belt Guide Roll Bearings	P	H/O		
Conveyor Belt Drive Pulley Bearing	P	H/O		

KEY TO ABBREVIATIONS USED

Bearing Type

A/F	Anti-Friction
P	Plain

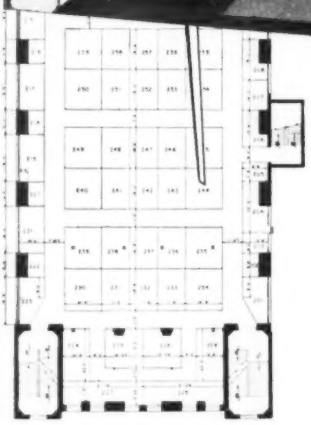
Method of Application

H/O	Hand Oiled
P/F	Pressure Fitting
O/B	Oil Bath
C/C	Compression Cup
R/O	Ring Oiled
W/O	Wick Oiled
S/F	Sight Feed
G/P	Grease Packed

Frequency

8-Hr	Once every 8 hours
24-Hr	Once every 24 hours
144-Hr	Once every 144 hours
3-Mo	Once every 3 months
6-Mo	Once every 6 months
12-Mo	Once every 12 months
CK	Check
DFR	Drain, flush and refill

See you in GREENVILLE...



Above is a scale model of Southern States booth at the Textile Exposition.

Look for this booth at the Southern Textile Exposition in Greenville October 6 to 11. In it you will find the latest engineering developments by Southern States. You will see, in operation, Southern States new coiler conversions for cards and drawing frames. Also on display for the first time will be the new SS individual card drive. This display will show that the folks who gave you the Type C-1 Ball Bearing Comb Box, Off End Stand and stock part service for card room equipment are still advancing in textile research and engineering. Southern States is proud of its accomplishments in the past year and is looking forward to seeing you and telling you about them in Greenville.

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Largest Manufacturer of Cast-Tooth and Cut-Tooth Gears in the South

Can Foremen "Teach Economics"

Without departing from his normal role, the supervisor can get the economic facts of the company across to the employees.

By **FRED RUDGE***
Fisher, Rudge & Neblett

WHEN it comes to teaching economics to employees, the foreman is the most important member of the "faculty." He doesn't have to wear a cap and gown or polish up on lecture-room techniques. Call him "teacher" or "professor" and he'll probably spit in your eye, at least metaphorically speaking. Yet the chances are he already is imparting economic information day in and day out to his subordinates. Helping him tell more — both by giving him the required data and by encouraging operatives to ask questions — is the key to success in making them understand the economic forces which influence company behavior.

Without departing from his normal relations with subordinates, the supervisor has abundant opportunity to enlarge his teaching role. For example, the people whom he directs look to him for instruction in their duties and for the "reasons why" behind directives. He strives to win their cooperation in recruiting new employees, or by reducing turnover, absenteeism, and lateness. He is constantly promoting productivity, cost control, and safe work habits; and he probably finds it necessary from time to time to explain pay rates and incentives. Economics enter into all such things and each activity provides a "hook" on which to hang an economics "lesson," although it may be a short one.

For example, an operative's question about the incentive system opens up the whole area of costs and prices, of productivity, company security, and employee job security. A drive for better quality is related to such questions as competition, free markets, and the buyer's right to choose some other product — or not to purchase at all. The question of a second shift, or of a lay-off, goes back to such economic issues as supply and demand; the cost of expansion as compared with increased use of available facilities; the relation of the individual company to the economy as a whole, and so on.

"The foreman doesn't have to wear a cap and gown to be an economics teacher. . . "

This man-to-man approach is usually far more convincing than printed material or formal instruction, although the latter have a part in the all-over economics education project. They supplement, rather than replace, the word-of mouth communication which experience shows is the all-important factor in efforts of this kind. To be effective, communication must be a two-way process, with those on the receiving end in a position to inquire and participate. An exchange of information is always better than a one-way stream. Foremen are uniquely situated to assume a vital communications role because they stand between middle management and the rank-and-file.

But before expecting supervisors to pitch in and start teaching, management should check up on certain things:

(1) Has the right kind of material been compiled and given to the foremen for them to pass along?

(2) Are the supervisors prepared to undertake the job?

(3) Does the company back them up with other forms of training — direct communications from the management, employee meetings with top executives, etc.?

Company Facts are Best for Program. Both foremen and their prospective "pupils" shy away from global economic trends and theories, which usually prove too general and too dull to hold interest. On the other hand, employees at all levels are usually avid for information about the company, and on why the management follows certain policies.

The most successful economic

*Mr. Rudge is the author of "Economic Information for Employees," published by National Foremen's Institute, New London, Connecticut.

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education programs are those which have concentrated from the start on examples taken from the company's own history, development, and experience. Rather than being designed primarily to "sell" the private enterprise system, they are beamed at helping employees grasp the economic "facts of life" *about the company and the industry*, including why the management pursues the course it does in conducting operations.

The foreman who has such facts at his command is giving employees what they really want to hear — facts which have a bearing on job security, opportunities for advancement, improvement in social status, and the like. The rank-and-file craving for such information is demonstrated whenever anything unusual happens in the plant, because employees naturally ask "How come?" when things aren't running as smoothly as they should.

If a schedule is changed, and short runs interrupt production, employees usually want to know why. They are quick to complain if maintenance is cut in slack times. "Why let things go," they ask, "until business picks up and the plant is too busy?" They criticize the sales department if orders must be completed on short notice — or if they come in too slowly. They also tend to regard essential accounting and engineering personnel as so much extra overhead. "Why are we supporting all those guys?"

Direct answers naturally must be given to such questions, but piecemeal information is not enough. There should be a backdrop of rounded information against which to view specific problems. Such perspective is provided when the economic education program gives the history of the company — how it was started; where the money came from to finance early operations; how it is presently financed; the competitive position of the company and how its products are marketed; the various factors which combine to set the prices of what the company sells; the part that profit plays in keeping the enterprise going; the functions which management performs, including the need for decision-making and for the management know-how and specialization which make sound decisions possible.

Few companies have this kind of information available at the time the decision is made to launch an economic education program. It has to be gathered from various sources, including the firm's own executives, its sales department personnel, and the trade association to which it belongs. Some, but not much, can be obtained from textbooks. Of course, the facts compiled should be screened for accuracy by qualified management personnel. When it is gathered, the initial step is to *educate the foreman* economically; the remainder of the program should rest until the supervisors are ready to undertake their teaching role.

Preparing Foremen for Economic Education. There are many reasons why special efforts must be made to give information and facts to the foremen. The average supervisor is separated from top management by several layers of executives, and this tends to insulate him from the economic understanding possessed by the highest group. In addition, attitude surveys among supervisors have often shown that foremen have not been admitted to the "inner circle" of management, even though they speak for management in their departments. In many instances, the foreman's position and importance must be enhanced, to give him greater authority and status in the minds of the rank-and-file. Obviously, foremen must be recognized as leaders if what they say is to win acceptance from others.

Foremen should also have a voice in shaping whatever printed material and other supplementary communications are to be distributed to employees as part of the program. If the foremen are built into the program from the start, via group meetings and conferences with management, they will contribute mightily to its development. Of course, everything distributed as part of the project should be coordinated with the supervisors' own efforts.

Experts agree that the most

"The man-to-man approach is more convincing than printed material. . . "

fruitful prelude to active economic education is the "ground preparation" phase, in which three important developments take place.

(1) Action to put the foremen in position to communicate.

(2) Action to *inspire* the foremen to communicate — to make them want to take part in the program.

(3) Action to create a desire, on the part of the employees, for information on economic questions.

With this three-way approach begins a truly effective program of economic education.

Overcoming Supervisor-Resistance to "Teaching." Nobody in his right mind expects foremen to take to economic education as the proverbial duck does to the barnyard pond. The following colloquy shows how the typical foreman reacts to the idea—and the kind of answers needed to win him over:

Question. *You want us supervisors to get more information to our people? Okay! That's fine. But I'm the wrong guy: I'm not equipped to pass around information of that sort—even if I had it, which I don't.*

Answer. Your top management is liberal and progressive and does want to communicate with its people. The facts are being gathered and interpreted right this minute. But you are the person who can make or break the effort. Why? Because you are the management in the

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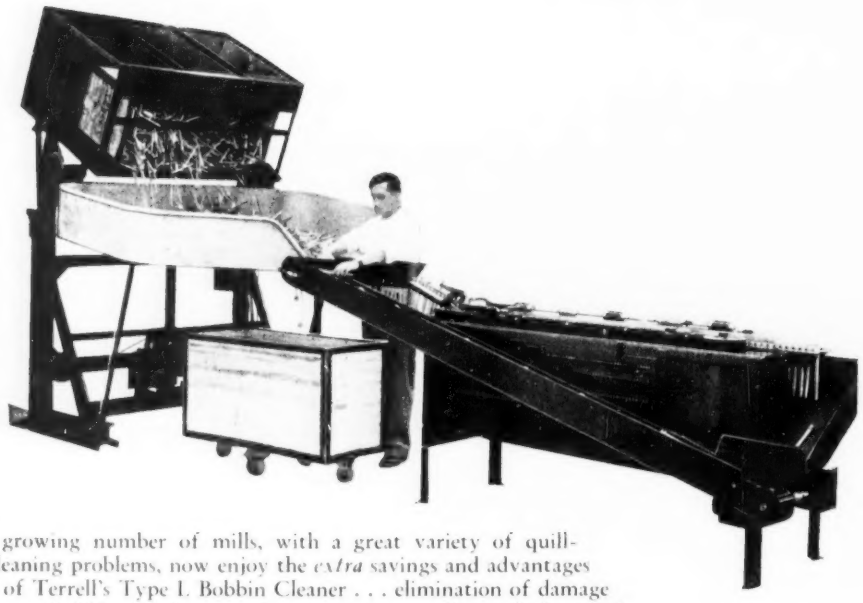

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minds of people who report to you, and you have dozens of opportunities every day to tell why top management does thus and so about particular situations. You are in a position to give the "reasons why" about all kinds of things. Remember, one talk on a man-to-man basis is better than fifty pounds of the best printed matter in the world.

Question. *What bothers me is why we should make the attempt. Employees don't care what the top brass thinks. All they are interested in is their pay—how much there is in the envelope at the end of the week.*

Answer. That may apply to some, but it isn't true of everybody. Job satisfaction goes beyond being paid a proper wage. You know yourself that people aren't just satisfied to take an order and carry it out. It has to add up in their minds. The trouble is, it won't unless the people know something about the business and how it operates—and also about the basic economic principles that underlie about 90 per cent of management's decisions. You have to know the ABC's of business economics to discuss them intelligently.

Question. *Maybe so, but how can foremen teach economics when we still haven't solved the simplest problems of explaining? I mean questions like: Who has the authority to make decisions? What are our employee policies? Why don't employees who make suggestions get thanked for them, let alone being paid for those adopted?*

Answer. All those things are part of a good two-way communications system — and getting one going is an important part of this economics education project. Management is going to tell *you* "why" about such matters, so you can either answer such questions on the spot or else know where to turn to get the information.

Question. *I have twice as much work as I can handle right now. On top of that, how do you expect me to do a teaching job?*

Answer. The more you lead your people, the more cooperation you'll get, and the lighter your own work load eventually will become. Good leadership means telling why; and that includes explaining company policies and economic reasons as well as telling a particular subordinate why you are giving him a certain order. This isn't a classroom proposition — it means just a few minutes a day talking to your people as occasions arise.

Question. *I don't want to sound selfish, but — what's in it for me?*

Answer. The best pay-off of all — a better chance of promotion. Learning about the business and about economic principles is the highroad to more effective leadership. The more you know about the company, the more intelligently you will be carrying out your orders. The suggestions you make will become more and more valuable, and you will become better and better equipped to take on increased management responsibilities.

Question. *Sounds good, but — do you really expect a program like this to change employees' ideas about how good, or how bad, our business system is and what should be done about it?*

Answer. It isn't your job to make people's minds up for them. The objective is to give *factual evidence*, so that people can make up their own minds—and do it intelligently. Your job is to take facts you *believe in and accept*, and then pass them along to your people.

Employees Crave Information. Many foremen fail to realize how much employees crave information about the company, about "the way they stand," about the reasons for changes they see taking place. Attitude surveys among the rank-and-file frequently bring out complaints of being "left in the dark." How strong the urge for information is can be seen from the following typical statements made to our researchers by employees:

"Everything around here is hush-hush. You hear a thing a dozen different ways before it finally becomes official."

"I think meetings would help. It would give us a chance to hear what the company is doing."

"Nobody seems to know what's going on. The supervisors may know, but they're always too busy getting out the work to talk about such things. Sometimes I think they don't know the answers, either."

Training Is Required. Supervisors, as a rule, don't become good communications experts by chance. They usually need training in how to put ideas across. Equally important, they have to get "in the stream" of company information, so they will understand the policies and practices of top management. Companies sometimes find at this stage that they have no adequate body of written information; however, a regular program of supervisor conferences provides the incentive for organizing such data and filling in the gaps.

"Foreman should have a voice in shaping the economic education program. . . ."

The principles of sound communications cannot be learned in one easy lesson. They call for training and for practice until it becomes second nature for the foreman to remember, among other things, that:

Words may be confusing. What seems clear to the speaker may not be so to the listener.

Two-way communication is vital. The supervisor has to lis-

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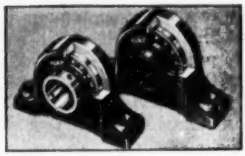

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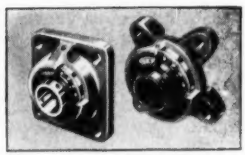
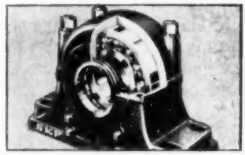


SERIES FUS and FUA—Ball bearing flanged unit having same features as SUS and SUA pillow blocks. (FUAR equipped with spherical roller bearings)



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ten, to answer questions, to stimulate discussion, as well as "tell" the employee.

Intent is often more important than words. The supervisor needs to remember constantly that the listener may be saying to himself, "That's what he *says*, but what does he really mean?" Words that are contrary to the listener's experience may be clearly stated, and yet carry no weight.

Trust is vital. The foreman who has not won the respect of his people cannot expect much success in putting across an idea. He may even do more harm than good.

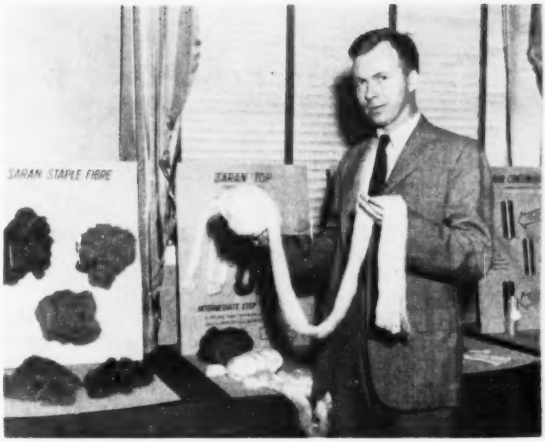
Know your man. It helps to know the individual's personal problems, his experience, and his point of view. He may even belong to the tiny percentage in almost every group who are "ag'in everything." If so, special treatment may be in order.

Stick to the facts available. A statement of fact is usually more impressive than a statement of opinion. Therefore the supervisor should find out the real "reasons why" before attempting to persuade others.

Be prepared to find out. If the right facts are lacking in a particular case, the best course is to say "I can't answer that question" — and then obtain the information and pass it along to the questioner.

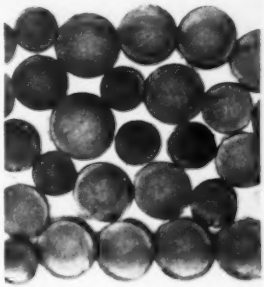
Checking up on Progress. At intervals during the program, its progress and effectiveness should be measured, and reports made to top management. Depth attitude research among the foremen themselves is an indispensable tool. The foremen conferences can also be utilized to evaluate the project. Like a faculty meeting in the public schools, it helps to get the "teachers" together and sound out their reactions to the course and ascertain how well the "students" are absorbing knowledge.

This is part of the *foreman participation in the program* — and in the management—which spells the difference between successful economic education for employees and "just another idea from the Boss."



Saran Fibers Offer New Range of Textile Products

Charles L. Worthington, The National Plastic Products Company, Odenton, Maryland, holds a specimen of saran top. Saran, a copolymer of vinylidene chloride manufactured by The Dow Chemical Company, is now available in continuous multifilament or staple in various deniers. Once limited to monofilaments varying from 0.005 to 0.070 inches in diameter, saran's invasion of the spinning field is expected to yield a new series of yarns for various end uses.



Microscopic view of cross section of saran staple fiber.

About 90 per cent of the current saran production is going into monofilaments to serve the screen and fabric (seat covers) market. Since saran multifilaments and fibers have reached the stage of commercial acceptance Dow is increasing production of saran.

The Saran Yarns Company, also located at Odenton, Maryland, is engaged in a program of fine denier saran yarn development. Several top makers and spinners are said to have experimented successfully with saran in blend or straight 100 per cent. It is reported that one worsted spinner has produced a 100 per cent saran yarn made from 10-denier fiber for suiting. Yarns will take acetate dyestuffs readily.

Among saran's properties are its high abrasion resistance and its resistance to moisture, mildew, and mold. The fiber shows extremely high resistance to acids, most alkalies and solvents. It is non-flammable.

Uses:

(1) Continuous multifilaments —industrial textiles, institutional upholstery, and drapery fabrics.

(2) Staple — papermaker's felts, mechanical felts, felt blankets, heavy inner lining materials, duck-like fabrics, blankets, carpets, drapery, and upholstery fabrics.

(3) Top and yarn—worsted or woolen type fabrics.

(4) Tow—doll, manikin wigs, some upholstery and drapery materials.

The Dollar Gets Cheaper and Cheaper

By RINGGOLD ARDEN

A PRESS DISPATCH recently announced that the cost of living was now at an all-time high, which means that the value of the dollar is at an all-time low. The people who have accomplished this happy result spent nearly a week bragging about it in Chicago, and pledging their devoted efforts to cheapen the dollar still further if they are just given another four years to work at it.

In listening to some of the various speeches delivered, we noticed with interest that not one mention was made of the word "inflation". Not one tiny breath was breathed about our massive national debt. No mention was made of the all-time high tax rate, or the all-time high cost of living. The boys who did the most bragging stuck to their line about what they had done *for* people, without saying a word about what they had done *to* the people who had to be gypped so that something could be done *for* the others.

At a time when inflation and the plunging value of the dollar is a matter of grievous concern to every American citizen, except the outer fringes which expect to live at the expense of the rest of us, it seemed odd indeed that politicians would be bragging about things they should have been apologizing for.

Let no one think that the downward sweep of the dollar has been arrested. Even as the hot air arose in the Chicago amphitheatre, the price of steel went up with it, as the long steel strike was settled almost completely on the union terms. The head of the union had previously stated that nothing was big enough to break his union's hold on the economic structure of the United States, and evidently he was right. Certainly the present Government was unable to cope with the situation. Some notices have already been given out that other unions will join in this successful assault upon the dollar, and it ought to be down to around 45 per cent of its 1939 value by the end of 1953.

These devotees of the theory of prosperity through a perpetual and constantly expanding inflation are certainly getting results! So long as these labor unions are permitted to operate monopolies, this policy of unlimited inflation will continue. Nothing but the institution of a competitive situation can ever stabilize our dollar, which is considered to be a desirable thing by practically all intelligent people, although certain politicians and most labor leaders indicate by their policies and utterances that a stabilized dollar is an odious thing, because it would prevent endless wage increases which can only go with depreciating money.

As an example of what a competitive situation can accomplish, we might consider what has recently happened in New England. It will be remembered that although a recession started in the textile industry during the winter and spring of 1951, the busy little unionists in New England insisted on the annual wage increase. The southern mills refused to go along with this demand, and the strike

Textile Colleges Supply Executives, Scholarship Study Finds

Strong evidence that textile college education fits young men and women for leadership is presented in a recently completed report by New England Textile Foundation. Officials of the Foundation, whose purpose is to insure a steady flow of college-trained young executives and technicians for the textile trade, authorized the study as a check on the organization's progress.

To test the worth of textile college training in the light of the needs of the industry for new recruits, a sample list of graduates from one textile college was followed up exhaustively. Findings were that 70% of those investigated hold important positions in the textile industry, 17% are active in allied fields, and only 12% have deserted textiles for other interests. Broken down in detail, the sampling of 306 graduates shows them occupied as follows:

Textile Industry, 215: 14 mill owners, 45 presidents, 23 vice-presidents, 30 general managers, 26 treasurers and secretaries, 45 plant superintendents, 32 directors of research, standards, testing and personnel.

Suppliers to Textile Industry, 53: 8 in textile machinery, 22 in chemical industries, 4 in electrical industry, 6 publishers, 13 engineers.

Others, 38: 5 in finance, 11 in education, 3 in law, 12 in U. S. Government, 3 in furniture, 4 in medicine.

Interest of Foundation stems from the fact that the organization annually makes 4-year scholarship grants, in the amount of $2000 each, for study at four New England textile colleges. Funds for these scholarships, as well as for instructional equipment and faculty aid, are contributed by textile manufacturers and firms in allied fields.

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which followed it in some mills of the non-monopolistic and unregimented South, was settled without granting anything which would increase the cost of textiles in a market which was even then insisting that prices were too high.

The New England mills were, however, less fortunate, since they operate under monopoly conditions. There are practically no mills in New England which are not controlled by the labor monopolies. The Wage Stabilization Board authorized a wage increase for these New England mills, and that, of course, necessitated a price increase or a shutdown, and what the help got, along with their wage increase, was the shutdown.

After dragging along for more than a year, with short time and threats of liquidations, the New England textile unions reluctantly agreed to taking up the question of abandoning this unwarranted wage increase. An arbitrator acceptable to both the unions and the mill owners agreed that this wage increase was unjustified and that it was interfering with the operation of the mills.

Mr. Emil Rieve, International President of the CIO Union which controls most of the New England mills, was quoted as follows:

"The decision of Professor Gellhorn (the arbitrator) unfortunately reflects the peculiar theory that lower wages can somehow result in better business We are very much afraid this theory will lead to disaster.

"Our union made it clear during the arbitration hearings that what ailed the textile industry in New England was not high wages, but poor sales. We pointed out that the same ailment afflicted the lower wage industry in the South, not to mention the far lower wage textile industries of England, India, and Japan.

"We said, and we repeat it now, that a wage cut can not sell a single yard of cloth.

"Ironically, Professor Gellhorn's decision comes at a time when there is every indication that business in textiles is on the way up. Naturally we welcome this revival; we will be overjoyed if there is a return to full employment for the workers. But if this comes about, it will be in spite of the wage cut, not because of it.

"As an honorable and responsible organization, we will, of course, abide by the decision. But we pledge our unremitting efforts to recover for the workers the full amount of this unjustified reduction in their earnings. We will correct the injustices of arbitration through the process of free collective bargaining."

This statement contains several items of interest. Mr. Rieve refers to "the peculiar theory that lower wages can somehow result in better business." Mr. Rieve seems incapable of understanding that too-high wages can also result in worse business. Wage rates in a competitive industry can not be set by labor union dictators. They must be set on the basis of what the general public is willing to pay for goods.

Mr. Rieve also said, "We said, and we repeat it now, that a wage cut can not sell a single yard of cloth." This was certainly an unfortunate slip on the part of Mr. Rieve, because his statement was

Neps Influenced by Cotton Variety and Card Rate

Neps in cotton carded stock are influenced by the variety of cottons processed and the rate of card production, according to a recent report* by the U. S. Department of Agriculture on studies made at Clemson, S. C., and College Station, Texas. Furthermore, the studies show that decreasing the rate of card production results in fewer neps, higher yarn appearance grades, removal of a higher percentage of waste, and a slight increase in yarn strength.

Highlights of the report follow:

1. The short staple upland varieties that are relatively uniform in length, coarse, and mature will produce acceptable nep content and yarn quality for the end products in which these cottons are generally used, when processed at relatively high rates** of card production.

2. The medium staple upland varieties that are average in length uniformity, fineness, and maturity will produce acceptable nep content and yarn quality for the end products in which these cottons are generally used, when processed at average rates** of card production.

3. The long staple upland varieties that are slightly irregular in length, fineness, and somewhat immature will produce acceptable nep content and yarn quality only when processed at lower-than-average rates** of card production.

4. The extra long staple varieties (upland varieties that are irregular in length, very fine, or immature, and Egyptian Karnak and American Egyptian varieties) will produce acceptable nep content and yarn quality only when processed at very low rates** of card production.

5. There is no relationship between the rate of card production and the characteristics of the fibers discarded in wastes or remaining in the products; however, the fibers removed as card strips and comber noils are shorter and more variable in length than those of corresponding raw stock. Card cylinder strips are coarser and comber noils are finer than the fibers in other wastes for the respective cottons.

6. An increase in the rate of card production results in higher non-lint content in the card strips and the comber noils, as measured by Shirley analyzer tests.

*"Performance of Selected Commercial Varieties of Cotton When Processed at Varying Rates of Card Production," U. S. Department of Agriculture, Production and Marketing Administration, Cotton Branch, Washington, D. C. Study planned and conducted under the administrative direction of John W. Wright, assisted by Roland L. Lee, Jr.

**Standard rates of card production adopted for spinning tests in the Cotton Branch laboratories to evaluate the processing quality of various cottons are:
American upland cottons approximately 15/16 in. and shorter, 12½ lb/hr.
American upland cottons approximately 31/32 in. through 1 $\frac{1}{32}$ in, 9½ lb/hr.
American upland cotton approximately 1 3/32 in. through 1¼ in., 6½ lb/hr.
American upland and American Egyptian cottons approximately 1 9/32 in. and longer, 3½ lb/hr.

Officina Meccanica

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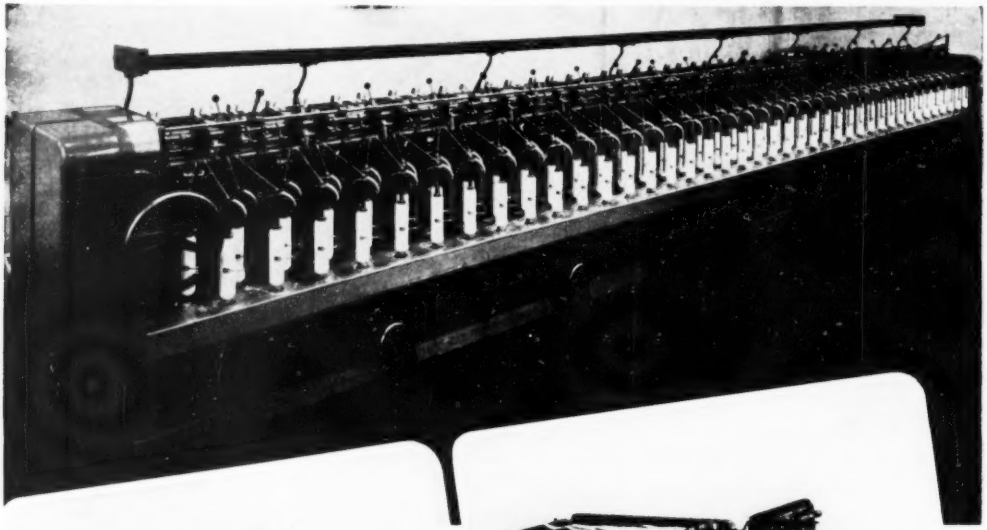

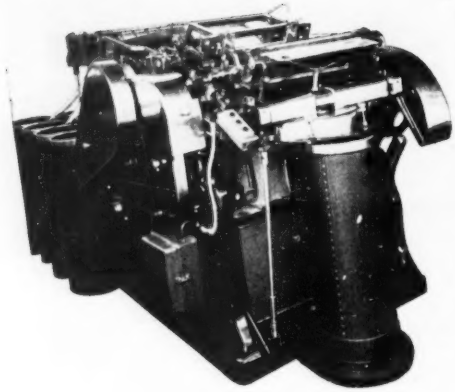

Above: Model BP Gill Flyer
Left: Rectilinear Comb for wool and synthetics
Right: Special Heavy Duty Gill Box

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hardly in print before the Hathaway mill, rejuvenated by being able to set competitive prices, got enough orders to start three-shift, six-day operation.

Mr. Rieve also remarked that business in textiles was on the way up, and that full employment for the workers might be expected, but "if this comes about, it will be in spite of the wage cut, not because of it." With southern mills still running below capacity, it is a little difficult to see how Mr. Rieve's optimistic hopes could be realized. Until all of the southern mills were completely filled with orders, New England mills with higher costs could expect to remain on short time, or no time.

Mr. Rieve's remark, "But we pledge our unremitting efforts to recover for the workers the full amount of this unjustified reduc-

Wage Practices and Related Benefits in Cotton and Synthetic Textiles

Paid Vacations. Paid vacations are established policies of cotton and synthetic mills having about 95% of the total industry employment, according to a March study of both industries conducted by the U. S. Labor Department's Bureau of Labor Statistics. The typical benefits in New England provided for vacation pay of 2% of total annual earnings after one year of service, 3% after three years, and 4% after five years. Southeast cotton textile employees generally received a 1-week paid vacation after a year of service; mills employing nearly a third of the industry labor force in this region provided for a second week of vacation after five years of service; a second week after five years was granted by mills employing about half of the industry labor force in these regions.

Insurance or Pension Plans. Insurance or pension plans, financed partially or in their entirety by the employers, had been adopted by mills with 85% of the total cotton textile employment; 88% in the synthetic textile industry. Hospitalization and life insurance benefits were applicable to most of the cotton operatives in all regions. About a third of the industry labor force in the Southwest, three-fifths in the Southeast, and nearly all in New England and the Middle Atlantic States were covered by health insurance plans.

As for synthetic operatives, about seven-eighths of those in the Southeast and three-fourths of those in the Middle Atlantic regions were covered. In New England, health insurance plans were applicable to about 95% of the synthetic textile employees, life insurance to 7 of every 8 workers, and hospitalization plans to 3 of every 4 workers.

Retirement pension plans are relatively new to the cotton textile industry, the Bureau stated. At the time of the study, such plans had been put into effect by cotton mills with 12% of the industry employment in the Southeast, 6% in New England, and 4% in the Middle Atlantic region. Synthetic mills: 6% of total industry employment in Southeast, 4% in Middle Atlantic, and 9% in New England.

Paid Holidays. Paid holidays were granted by mills employing about one-fourth of the nation's cotton textile operatives and about one-half of those engaged in the manufacture of synthetic textiles. The most common practice was 6 days a year.

Late Shift Employment. About half the operatives in both fields were employed on late shifts, according to the survey. The payment of premium rates for second-shift work is not a common practice. A majority of the third-shift operatives, however, received extra compensation for late shift work. The most prevalent differentials were 7 cents an hour in New England and 5 cents an hour in the Southeast.

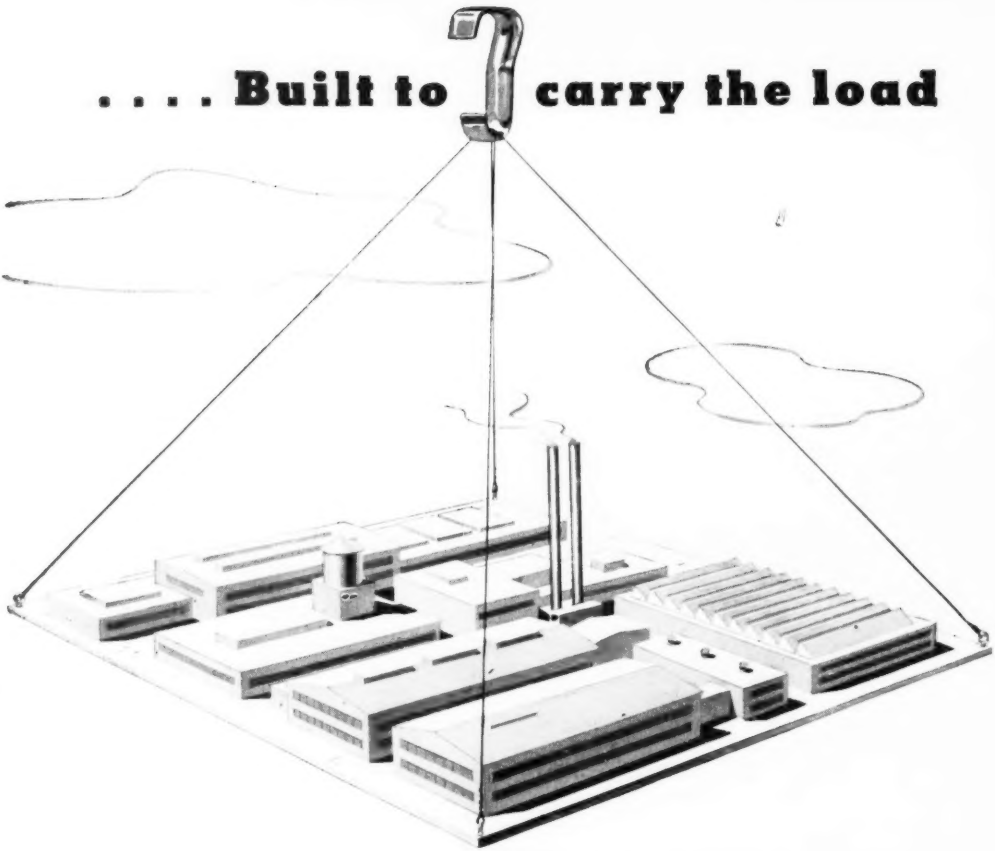
Minimum entrance rates and minimum job rates relate to the lowest paid in any establishment to inexperienced and experienced employees, respectively. Advancement from the entrance rate to the job rate often involves either a formal training period of progression of rates based on length of service or merit ratings. In many mills, however, no intervening steps between the minimum entrance and job rates were reported, both rates being identical.

Hiring Rates. For the two industries as a whole, there was no significant pattern of hiring rates; regionally however, there were marked differences.

Cotton mills employing about half of the operatives in New England, for example, reported an entrance rate of $1.165, whereas somewhat over half of them were in mills with job rates of the same amount and over a fifth in mills which had higher job rates. In the Southeast, on the other hand, except for the 75-cent rate found in mills with about a fifth of the employees, minimum entrance rates were not concentrated around any particular figure. Job rates in Southeastern mills, however, tended to cluster about $1.035, which was paid by mills employing 17% of the operatives in this region; mills employing about one fifth had job rates ranging from $1.00 to $1.03.

Entrance and job rates of at least $1.165 were reported by New England mills with nearly half of the synthetic textile employees. In the Middle Atlantic and Southeastern states there was no clustering of minimum entrance rates, except for the 75 cent rate. This was reported for mills employing two-fifths of operatives in Middle Atlantic states and one-third of those in Southeast. The next greatest concentrations, each affecting a tenth of the operatives, were at 85 cents in the Middle Atlantic and at $1.01 in the Southeast. Minimum job rates, however, tended to concentrate at $1.02 in the Southeast and at $1.14 or more in the Middle Atlantic region, and were found in mills employing over a third of the synthetic textile operatives in the respective regions.

. . . . Built to carry the load



The entire production of your mill passes through travelers. That's why it is so important to choose travelers that can "carry the load".

The *wrong* traveler will slow up the steady flow of work at the spinning or twisting. Production will lag, quality will suffer, and profits will sag.

With the *right* traveler, you can meet output schedules, cut down waste, and upgrade quality.

Today it is more difficult than ever to be sure the traveler will "carry the load" because of new developments in synthetics and blends, and new techniques in processing conventional fibers. To save time and trouble in setting up the smooth-running spinning or twisting you want, you need up-to-the-minute traveler information.

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tion in their earnings," indicates clearly that the first little bit of hopeful business the New England mills can get will lead to more strikes and more disorders, fomented by people who are infatuated with the idea that there is no limit to what the public can be forced to pay for something.

It seems to us that the textile employees of New England will be far better off working full time at a realistic wage, which will keep them employed, than working three days a week at a higher theoretical wage, which keeps them largely unemployed.

It has been stated that along with these wage adjustments some corrections have been made in the low work loads in New England mills. If this has been done to any considerable extent, those mills will have solved their major problem of survival. It has not been unusual for New England mills to try to operate with work loads way below those carried in the South. The unions have held this fact up as a horrible example of the terrible overworking of the southern mill operatives, instead of truthfully admitting that they have kept these work loads down to keep more dues payers in their membership.

No work load is a sacred and inviolable thing, as the unions try to make it. It changes from year to year as better machinery becomes available. It has not been too long since the Fall River weavers' unions insisted on eight looms to a weaver where 80 would now be considered reasonable.

The writer does not advocate either low wages or high wages, but the fairest wage that the willingness of one man to work, and another man to buy, can make possible. We felt that the steel employees in this recent dispute were not entitled to any increase at all, since they were already getting about 20 per cent more than the average for all employees in manufacturing plants. If the national economy could stand any more wage increases, there were certainly several million employees who could give better justification for increases than people who were already 20 per cent above the average. Such reasoning, however, has no effect with people who possess the economic power to force the rest of us to pay them what they want, instead of what competitive conditions would determine that they are worth.

The only thing that will correct these inequities and iniquities is a depression. We have just been having one in the textile industry. When there will be one affecting all American industry is anybody's guess. The inflationists are desperately trying to stave it off with more and more inflation. As this inflation boosts the dollar incomes of millions of other employees, and therefore increases the cost of living, the textile industry will have to increase its wage rates if business is good. If business isn't good, nothing will be accomplished by raising wages except to make business worse for this industry.

The depression which started in 1929 was caused by an inflation similar to this one, only smaller, and it was precipitated by prices getting so completely out of joint that the normal conduct of business was impossible. The generators of this inflation, of course, claim that somehow it is different from other inflations. We doubt it. An inflation is an inflation. It may look different and act different, but it is still just an inflation.

Sizing Continuous Filament Nylon for Broad Woven Fabrics

Experience of the DuPont Company indicates that in most cases slasher (warp) sizing for continuous filament nylon weaving will give equal or better weaving performance and will be more economical than single-end (thread) sizing, a recent "Nylon Customer Service Bulletin" stated.

Sizes with a polyacrylic acid base have given best results, the Bulletin reported, reminding customers that these are acidic sizes and are normally handled in corrosion-resistant equipment. Where such equipment is not available, sizes with an "Elvanol" 51-05 polyvinyl alcohol base may be used.

Polyacrylic acid has been found to be incompatible with most quaternary ammonium salts and with some emulsifying agents. In finishing fabrics which have been sized with polyacrylic acid, it is recommended that the size be removed by scouring before heat-setting, since the removal of polyacrylic acid which has been subjected to high temperatures may be extremely difficult.

Soft water should always be used with formulations containing "Colloids" 287, according to the Bulletin.

Slasher Operation. It has been found that temperature in the size box should be maintained in the range of 110-120 F when using polyacrylic acid and 135-150 F with "Elvanol" 51-05 polyvinyl alcohol. Can temperatures said to have been found successful for a 7-can slasher are: 1—160 F, 2—180 F, 3—200 F, 4—200 F, 5—200 F, 6—190 F, and 7—cold.

Positive tensions with zero per cent stretch for nylon on the slasher are suggested to give more uniform end-to-end tension control. The average commercial speed of operation was reported to be 24 to 30 ypm.

A total pressure of 1050 pounds between rolls with a quetsch roll hardness of 65-70 Shore Durometer Units is considered average.

In cotton system operation, to insure end-to-end tension uniformity on the loom beam, checks should be made to see that brake drum wraps on all section beams are the same.

Warps are sometimes oiled as they leave the last cylinder of the slasher to lubricate the sized yarn and reduce static. Oil can be applied by means of a wick or variable speed contact roller.

Conventional static eliminators are sometimes used to reduce or eliminate static which may be formed by running nylon at high speeds over dry steel rods.

Always Uniform

Whether it's in shooting or slashing . . . reliability depends as much on what you use as how you use it.

The Keever aim for many years has been to keep Victor Mill Starch at unvarying top quality.

Better penetration, stronger warps, less shedding in high-production mills are often due to Victor Mill, "The Weaver's Friend" . . . and the conscientious help of the Keever man who serves you.

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Readers are invited to make use of this section for further discussion of published articles, or for discussion of problems arising in the plant. Names will not be used without permission. Payment is made for practical articles or for letters containing manufacturing information.
Address: Editor "Textile Industries," 806 Peachtree St., N. E., Atlanta, Ga.

Statistical Method for Controlling Lap Tolerances

Subject Briefed: *What tolerance should be allowed on laps of different lengths? This question has been brought forth by recent developments whereby the picker lap may be compressed and a lap of greater length may be produced, although the diameter will be no greater than that of a conventional lap. We use a tolerance of plus or minus* ¾ *lb, or a total of* 1½ *lb for a* 44*-yard lap, weighing* 16 *ounces per yard. A* 52*-yard lap would require a tolerance of* 1¾ *lb, determined as follows:* 52 *x* .27 = 14.04 *oz. The tolerance, therefore, would be plus or minus* 14 *oz, or a total of* 28 *oz. A* 58*-yard lap would require a tolerance of* 2 *lb, etc.* (CONTRIBUTOR No. 8395, *Sept.*, 1951.)

EDITOR TEXTILE INDUSTRIES:

In your issue of September 1951, CONTRIBUTOR No. 8395 has posed the question, "What tolerance should be allowed on laps of different lengths?"

This is an important question for practical work, but I am afraid that as a statistician, I cannot agree with the method of solving it as suggested by your contributor for the following reasons:

(1) The performance of a machine depends upon a number of factors, such as its condition, cotton fed, and variations in the previous processes. If arbitrary tolerance limits of ± 8 oz or ± 12 oz are specified, the machine may not operate within the established limits. On the other hand, when the factors affecting the performance of a machine are well controlled, it may be possible for the machine to operate within narrower limits than those specified.

Tolerance limits should therefore be estimated to allow almost all of the product to fall within tolerances without any undue adjustments on the machine.

The best method for estimating the tolerance limits and enforcing them involves the technique of statistical quality control and maintaining a control chart. The tolerance limits can be set at the ± 3 θ limits called control limits, where θ is the standard deviation of the weight of laps.

If the limits are considered too wide to be consistent with good standards, the control chart indicates that the machine needs some major improvement to reduce its variation once and for all. Specification of tolerance limits at the

KINK CONTEST!

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Someone will receive more than $100 for a kink or short cut.

Send your entry NOW!

This contest ends November 15, 1952.

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are received.

The contest rules are simple:

All contributions must be postmarked not later than midnight, November 15, 1952.

No limit to the number of entries an individual may submit in any one contest.

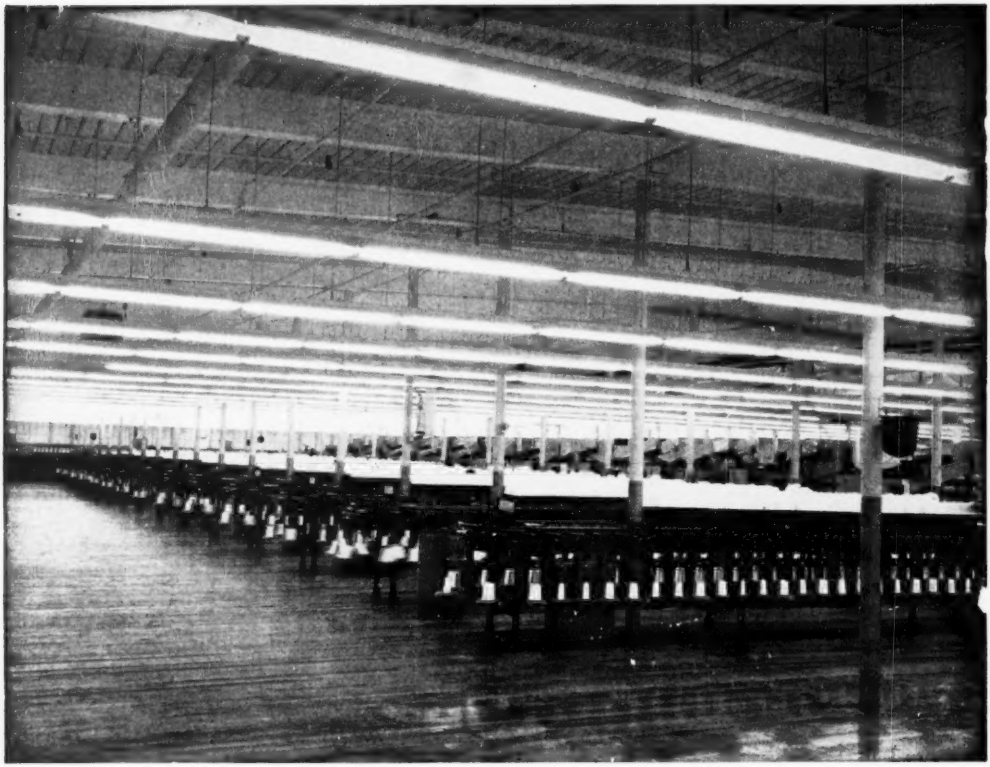
All entries paid for upon acceptance—no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

Entries must not have been published previously.

Send your contest entry to:
Editor TEXTILE INDUSTRIES, 806 Peachtree Street, N. E., Atlanta 5, Georgia.

ABBOTT MACHINE

INSTALLATION OF AUTOMATIC RAYON QUILLERS



Twelve Abbott Automatic Rayon Quillers with Pinboard Attachments are run by only *six* operators in the above mill installation. Such an efficient installation achieves lowest operating cost with maximum production per operator.

Empty loom bobbins are automatically loaded and filled. Full loom bobbins are automatically doffed onto pinboards, which permits one operator to handle up to 240 spindles.

One of our representatives will be glad to study your filling winding requirements and submit a proposal for your consideration.

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FACTORY AND MAIN OFFICE:
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$\pm 3\ \sigma$ control limits permits almost all of the product manufactured by the machine to fall within the tolerance limits.

Further, whenever a defect develops in the machine or the process, causing a shift in the average weight or an increase in the fluctuations, it is reflected in the control chart. Thus the control chart also serves as a sensitive trouble shooting device. Any improvement in the variation of the product is also apparent in the control chart, which thus gives a basis for revising tolerances from time to time, if necessary.

We have introduced statistical methods in some local textile mills. Prior to our work, the tolerance limits specified by the mill technicians were $\pm$ 4 oz, irrespective of the condition of machinery, mixing, and length of lap. The result was that the pickers had to be adjusted after every 3 or 4 laps to keep them with limits. Repeated adjustments were a source of variation which had not been recognized. After control charts were maintained, a number of defects were discovered in the machines. When the defects were removed, improved operations were noted in the picker room and in subsequent processes.

Many mills are now working with tolerance limits of $\pm$ 6 oz, or $\pm$ 8 oz, as estimated from the control charts, and almost all of their laps are within limits.

Once the pickers are correctly set in the morning it is possible to run them throughout the day without a single adjustment, unless there is a change in mixing. Results in subsequent processes have been noteworthy. Reduction in the rate of end breaks and work loads, increase in evenness in sliver and yarn, increase in machine utilization, and decrease in damaged cloth are some of the benefits derived by bringing the picker room under control.

(2) The method given (by CONTRIBUTOR No. 8395) for estimating tolerance limits after changing the length of the lap, is not correct, according to statistical principles.

When a picker is under statistical control, consecutive one yard pieces of a lap would not be correlated. In this instance, if control limits for a lap of 44 yards are $\pm$ 12 oz, those for one yard will be $\pm \frac{12}{\sqrt{44}}$ oz, or 1.809 oz and not $\pm \frac{12}{44}$ oz as suggested in the article by CONTRIBUTOR No. 8395.

Total control limits for the weight of a lap of 52 yards will then be $\pm$ 1.809 $\sqrt{52} = \pm$ 13.045 oz, and for a lap of 58 yards, control limits will be $\pm$ 1.809 $\sqrt{58} = \pm$ 13.777 oz. Similarly, revised control limits can be estimated for mills having $\pm$ 16 oz as their tolerance.

If the pickers are maintained under statistical control, revised control limits may be estimated from the following formula:

L = original length of the lap
L_1 = revised length of the lap
C = original control limits
C_1 = revised control limits

Then $C_1 = C\sqrt{\frac{L_1}{L}}$

The foregoing formula is based on probability considerations and insures that in the long run the proportion of off-limit laps remains the same when the length of the lap is changed. When changes are made, the best way to estimate control limits would be to find the limits indicated by the control chart.

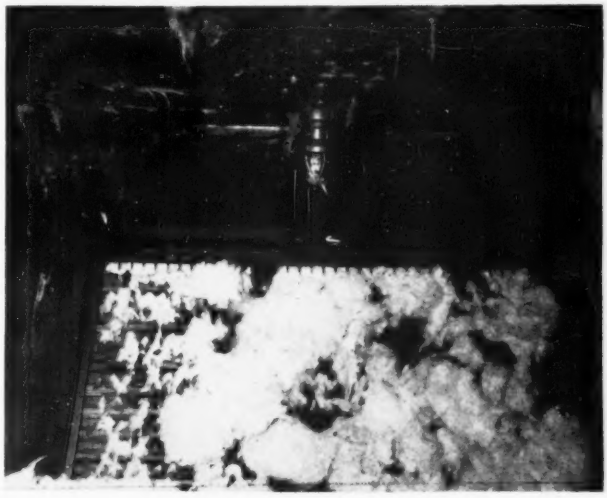
CONTRIBUTOR No. 8456
(India)

Improved Comb Attachment For Blending Feeders

AN ECONOMICAL and durable combing attachment for blending feeders can be speedily constructed in the mill machine shop. The comber, made from scrap parts, serves as an excellent substitute for the original, should delivery of factory replacement parts become delayed.

The device consists of a $1\frac{1}{2}$" steel shaft extending the width of the feeder hopper and mounted on Oilite bearings attached to the sides. The shaft is made to oscillate by an eccentric motion belt-driven from the spiked apron pulley.

Four $\frac{1}{2}$" steel rods, each 12"



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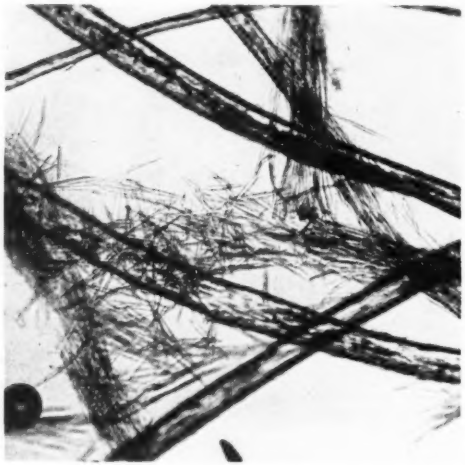
SOMETHING NEW AND BETTER

Slasher Cloth is an important maintenance item in a cotton mill. With the introduction of **ORR** *Slasher Cloth with Special Treatment*, many of the problems which have pestered the slasher room foreman have been eliminated.

The slasher room foreman, in order to satisfy the superintendent and the cost department, must have available a *Slasher Cloth* which will:—

1. Dress the yarn properly.
2. Hold its width.
3. Maintain level production performance.
4. Start fast — last long.

LOOK AT YOUR USED SLASHER CLOTH UNDER THE MICROSCOPE



Do you see this condition in the wool fiber? The untreated wool fiber has disintegrated and has caused the slasher fabric to fail. It has caused down time, dusty yarn, and off quality dressing. Discuss your *Slasher Cloth* problem with your **ORR** representative.

ORR *Slasher Cloth with Special Treatment* resists the common conditions which cause wool degradation at the slasher. After you have received a longer and more satisfactory run from your roll of **ORR** *Slasher Cloth* you will find this condition in the wool fibers of the used fabric.

ORR *Special Treated Slasher Cloth* maintains uniform dressing properties, resists bacteria and steam degradation, maintains dimensional stability.

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long, are fastened equidistant across the shaft, normal to its axis, and extending toward the spiked lifting apron. These rods are fastened in holes in the shaft drilled for tolerance and secured by flush-head set-screws threaded in the shaft.

A 1/32" metal sheet 10½" wide, and conforming to the width of the hopper, is mounted underneath the four rods with countersunk flat-head metal screws. One edge of the sheet is flush with the main shaft, and the other edge is even with the tips of the four rods.

A surplus spiked slat is attached to the edge of the sheet even with the rod tips so that the pins protrude downward at an angle toward the spiked lifting apron.

The exact setting of the comb to the spiked apron can be obtained by two methods:

1. Relocating the bearings of the main shaft.
2. Loosening the set screws holding the four rods in the shaft and adjusting the rods to the desired length from the shaft center.

Comments on Checking Twist in Roving

Subject Briefed: CONTRIBUTOR No. 8290 *explained how a Suter twist tester was modified for making roving twist tests by marking indicators to measure quarter turns of twist. Also, a five-inch length of roving was used to check twist; a ten-inch length was found fragile and hard to handle.*

EDITOR TEXTILE INDUSTRIES:

Recently at our plant we started making hard twisted 2.00 hank roving which was twisted two-ply and sold to the chenille trade. We had hoped to set up a standard construction with four turns per inch in the singles and enough twist in the ply to balance the yarn.

Unfortunately each customer wanted a slightly different twist in the singles yarn and we had to change twist on the roving nearly every time we put up an order for a different customer. We ran into the same difficulty as CONTRIBUTOR No. 8290 in not being able to get accurate readings on checking 10 inches of roving, so we had to use five inches in order to obtain accurate reading.

At first we used a Suter tester with the tension regulating device, but could not get an accurate reading because the tension could not be regulated properly for the roving. The soft roving would tend to break before all of the twist was removed. We ran quite a few checks of twist from the same bobbin on both the Suter machine and an old twist counter, and surprisingly we got a much more accurate count with the old machine with the dial.

The procedure we finally adopted in using the old twist counter with dial is as follows: Several rounds of roving are removed from the bobbin, and the loose end is inserted into the clamp next to the crank end and tightened down before the roving is inserted into the other clamp to prevent any loss of twist. Then the other end of the strand of roving is inserted into the other clamp, and the roving is severed from the bobbin.

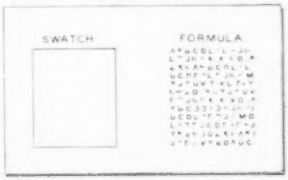
After most of the twist is removed from the roving the counter is turned until the strand of roving seems almost without twist. Then a needle is inserted into the strand of roving with the left hand and moved to the right as the remainder of twist is removed. When the needle could be moved the total length of the strand of roving and completely split the strand.

(*Continued on page* 215)

Handy Way to Record Hosiery Dye Formulas

EDITOR TEXTILE INDUSTRIES:

There are many different types of records for keeping check on dye mixtures, and all of them may have merits for use in some instances. However, we have established a handy file which we have found helpful when it is necessary to quickly locate a formula and sample. The record should be adequate and of value to many other mills, especially hosiery manufacturers.

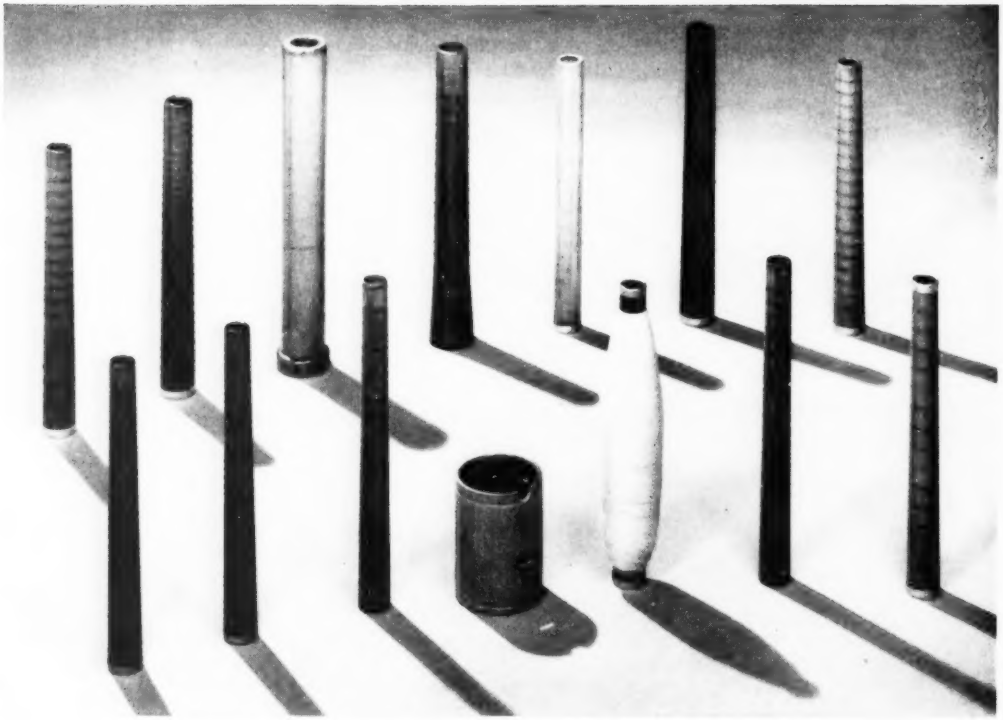


We manufacture a large volume of nylon and cotton hose, and a card file system was adapted to make an excellent record for hosiery dye formulas.

A swatch of the dyed material is attached to the left side of the card to show a sample of goods dyed by the formula shown on the right side of the card. Card size is 5 x 7 inches.

Our colors are used alternately during the spring and summer seasons; therefore the card system provides a quick reference and check on our seasonal activities in the dye house.

CONTRIBUTOR No. 8482



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we considered all of the twist removed. This procedure may not be as scientifically correct as the one outlined by CONTRIBUTOR No. 8290 but we found it to be much faster and for all practical purposes as accurate as the Suter counter. The old machine has a much larger jaw in the clamps, and we had no trouble fastening the roving in the clamp. The newer machines, such as the Suter, are excellent for yarns, but I prefer the old dial type machine.

CONTRIBUTOR No. 8478

A Belt Maintenance Program Cuts Costs

EDITOR TEXTILE INDUSTRIES:

One of the biggest items on the cost sheet of any mill is belting. Belting properly cared for can be made to run for years, irrespective of the material it is made from. Heat is the greatest cause of belt failure and is usually caused by belt being too loose and slipping and not giving a positive drive to pulley. Heat will cause leather belts to lose their oil content and become stiff and brittle and eventually crack or break; heat will cause fabric belts to lose strength and also cause the plies to separate.

Section men and grinders should always be on the alert to spot any condition that would adversely affect the life of belting and correct it immediately. Some of the major points to watch are outlined as follows:

(1) Motor and frame pulleys should be in perfect alignment. One pulley only an inch or so out of line can cause belt to rub against flange and cause premature wear on the belt; this is especially true on a crossed belt drive.

(2) Where two machines are run from same motor, belts should be separated by a flange between motor pulleys or some other suitable device to keep belts from tangling when shifting from loose to tight pulleys.

(3) Both motor pulley bearings and frame pulley bearings should be properly oiled to reduce frictional resistance of bearing and to keep belt from slipping, especially on start-ups.

(4) Belts should never be run too loose. Belts should be adjusted tight enough to run without being so tight that they ruin the bearing. Belt should be tight enough to require some pressure to force it onto the pulley. A little experimenting is usually required to find the proper degree of tightness for each belt. Also the condition of the pulley bearing should be taken into consideration. If a bearing runs hot after belt is put on, it may mean the belt is too tight.

(5) Both tight and loose pulleys should be smooth and free from holes and broken places, especially on the flanges if flanged pulley is used. Both pulleys should be the same diameter and should fit tightly together on the shaft. Loose pulleys should not wobble. Excessive wear of belt will result if it is hard to change belt from loose to tight pulley or vice versa.

(6) Belts should be cleaned as often as needed. In parts of mill where lint accumulation is heaviest (such as card room), it is a good idea to clean them at least every two weeks. The machine operator or section man should be held responsible for correct cleaning at proper time. Chemicals used for

Rack for Empty Spools At Sliver Lap Winders

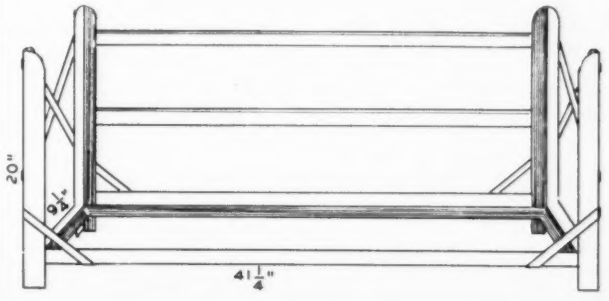
EDITOR TEXTILE INDUSTRIES

We have built a rack to take care of empty spools at the sliver lap winder. Spools stacked in the rack are kept off the floor and free from grease and oil contamination. Also, the rack serves as a safety measure in that there is less danger of an operative stepping on a stray spool.

The rack usually sits on the floor beside the machine and can be moved at any time. A suitable rack may be built for spools of any length. Our rack is made of 1½" angle iron and was made for 9" spools. The rack is 41¼" long, 9¼" wide, and 20" high.

Slats are attached to the rack on the one side to prevent the spools from coming in contact with the machine (see accompanying illustration).

CONTRIBUTOR No. 8479



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to your

conveyor questions

Plan now to visit the friendly Alvey conveyor engineers — and bring your conveyor problems with you. There's nothing the Alvey men like more than helping you develop the most efficient and economical product handling plan for your mill. You're sure to profit by their experience in designing conveyor systems for some of America's largest textile producers.

Make it a date to get better acquainted with Alvey at Greenville—but if you can't make it, please ask us to send an Alvey conveyor engineer to visit you.

Be sure to visit Booth 602

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ENGINEERED PACKAGE HANDLING SYSTEMS

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cleaning should be made by reputable manufacturers.

(7) Correct size belt should be selected for each job. A belt that is too small for the load will wear prematurely and will never give satisfactory service. A belt too small for the load requires more frequent adjustments because of excessive stretch.

(8) At regular intervals belts should be dressed with some oil type belt dressing to maintain suppleness of belt and prevent cracking. Any belt that needs stick belt dressing is not adjusted properly.

(9) V-belts on multiple-belt drives should be run in matched sets. When a belt in one set breaks it is a good idea to put a complete new set on and save old belts to be used on another drive. A new belt that has not stretched will take all of load and soon wear out while the older belts take hardly any of the load. Sheaves should be free from broken or rough places and should be kept in proper alignment. CONTRIBUTOR NO. 8491

Comments on Card Grinding Practices

A MAN WITH 40 years' experience in a cotton mill once said that any one who attempted to lay down a set of fast rules for processing cotton is either a fool or so old he is indifferent. However, if the men before us had not handed down to the next generation, in printed form, the results of their long experiences there would have been little progress.

What is good carding? We recognize it when the sliver produced is even and free of foreign matter and neps. In recent months there has appeared to be an ever increasing interest in this subject of better carding, and rightly so. In the July (1951) issue of TEXTILE INDUSTRIES there appeared a most informative article on carding by CONTRIBUTOR NO. 8364.

In defense of the card it is necessary to consider both the preceding and succeeding processes to get the whole "picture." For instance, if we feed an inferior picker lap into the best set-up card in the world, an even card sliver should not be expected. After leaving the picker the stock has left the only mechanical evener in the mill, and from there on "reap what you sow." When we talk of good carding, we must naturally assume that everything possible has been done both in picker and opening rooms to obtain a "perfect" lap.

Now, back to the card. A common complaint is that the machinery builders have perfected super-duper cleaning and opening machines, redesigned pickers, completely changed the drafting elements on drawing, roving, and spinning, but they allow the card to continue wearing the same old "face" it had 50 years ago.

The foregoing comments are true, except those about the card. Improvements *have* been made; there is the new type tube gear in the coiler head which puts more sliver in the can. Ball bearings on lickers-in and feed rolls constitute an improvement. Fringe rolls at the feed plate prevent lumps from being "jerked in" by lickers-in, and the perforated steel screen is for waste control. Last but not least, the application of the continuous stripper has done much to improve operation of the card.

The stripper has been accepted by many mills running staples up to 1-1/16" in length. We know that the standard way of stripping with either roll or vacuum makes the card sliver weigh 8 to 10 grains "heavy" just before stripping and the same percentage on the light side immediately after stripping. The continuous stripper eliminates over 80% of periodic stripping.

Card Grinding. Mill superintendents realize the importance of having a good card grinder. He can make or break the card room. My contention is that 90% of the mills do not replace clothing because it is worn out. The clothing is usually "ground away." Do not let the emery striker spark. Recently a fillet was removed from a doffer after 22 years of service.

Most mill men have noticed that the sliver appears more uniform immediately after grinding the cards and the good sliver is attributed to grinding the card. I contend that the actual grinding action should not be credited with over 50%, if that much, for the improved work of the card. To prove the theory why not take a group of 10 cards and skip grinding these cards every other round, but at the time grinding is due have the grinder go through all preparations for grinding. Burnish cylinder and doffer wire, allow flats to run clear, "hook out" all lint and lumps between arch and cylinder, and have the card reset the same as after grinding. The flats can, of course, be both burnished and ground while in production. It is costly to needlessly grind away expensive card wire.

Keep the card clean and worn parts replaced. A man who economizes on card maintenance is a spendthrift—and this statement applies to any mill department.

The card is the most expensive machine and weighs more than any other machine in the mill, based on pounds produced per hour per machine. It weighs 7000 pounds and produces an average of 10 pounds per hour. So treat it right.

The card is still an "antique," but who is there to say "I have something better."

CONTRIBUTOR NO. 8406

NEW Equipment AND MATERIALS

Other items are described on pages 127 and 129

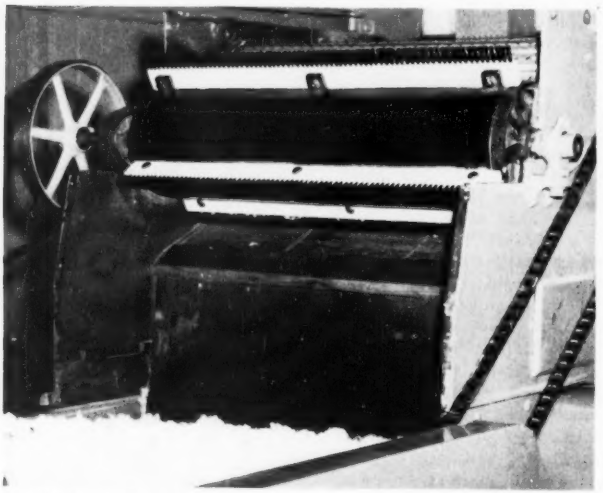
Turret Winder for Full Decating Machine

(Continued from page 129)

to 16 pieces per hour with one operator, this turret winder, coupled with the Gessner automatic controls on the vacuum kettle itself, comprises a new and efficient team in the process of full decating, the manufacturer reports.

David Gessner Co., Worcester, Mass.

For additional data, request item I-311, using business reply card on page 286.



Feeder equipped with nylon bristle doffer roll (Atlanta Brush).

Nylon Brush Doffer Rolls Have Long Life

A new type of doffer roll for the lattice pin aprons on feeders and picker hoppers, to clean the stock from the pins, is made of nylon bristles instead of leather. A trial installation of the doffer brush in a cotton mill for a period of 20 months has shown no wear on the brushes, no chokes or machine stoppage to allow for clearing of the pins, and no packing of the cotton as the brush removes it from the apron.

The brushes are said to fluff the cotton as it is doffed, thereby producing a better mix.

Experience has shown that the nylon bristles do not mat with the stock.

According to the manufacturer, the brush doffer rolls offer savings to the mill on both initial installation cost and future maintenance.

Atlanta Brush Company, 320 Tanner St., S. E., Atlanta, Ga.

For additional data, request item I-305, using business reply card on page 286.

Soft Package Attachment for Winding Dye Tubes

A soft package attachment is available for winding synthetic yarns onto 1⅝" dye tubes at spindle speeds up to 1050 rpm on Universal No. 50 precision winding machines.

The attachment is particularly suited for winding dye packages that go into high pressure dyeing systems, the company states. It permits very close control over the winding tension, and as a result, soft packages of proper density can be obtained from every spindle.

Delivery of the yarn should be from cones or an equally free delivering type of supply. Starting tension can be as low as two grams, providing the yarn delivers freely enough from the supply package.

The soft package attachment consists of a roller bail assembly, a "close to package" type guide, a lightweight tension lever and a spring arrangement for adjusting the pressure. The lightweight tension lever is designed to provide extremely accurate tension adjustments, and since the roller bail, instead of the guide, contacts the surface of the package during winding, pressure is distributed evenly over the entire length of the yarn mass wound on the dye tube.

The "close to package" type guide brings the delivery point of the yarn as close as possible to the surface of the package and assists in accurately laying the yarn onto it.

This attachment can be easily and inexpensively applied to No. 50 winding machines presently equipped with pineapple coning attachments, for, the traverse frame back and the roller bail assemblies already on these machines can be used by removing the rest of the pineapple coning attachment.

The company recommends using the soft pressure attachment on No. 50 winders equipped with a 2½ wind gear gain mechanism.

Universal Winding Co., Cranston, R. I.

For additional data, request item I-304, using business reply card on page 286.

Diaphragm Valves for Corrosive Chemicals

A series of general-purpose diaphragm valves now available is highly recommended for handling a wide variety of corrosive chemicals. Metal never comes in contact with the liquids handled. The valve body is molded of Ace Parian, a plastic com-

WORTH INVESTIGATING!

LEVEL DYEING!
ECONOMICAL!
CHLORANTINE* FAST
SCARLET
BNLL

Recommended!

. . . FOR ALL "QUALITY" VISCOSE AND COTTON YARNS AND FABRICS where light and wash fastness requirements are of the highest.

Especially Useful!

with urea formaldehyde finishes . . . little or no bleeding in the resin bath . . . the final shade practically identical with original dyed shade . . . light fastness is unaffected.

WHERE COPPER SALTS ARE USED WITH RESIN, the light fastness remains unimpaired but the final shade is slightly bluer.

Shade cards and complete data available on request.

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WHATEVER kind of power transmission or conveying problem you have, Link-Belt engineers are in a unique position to help you. Working with a complete line . . . backed by unequalled experience—they can give you an expert, unbiased recommendation reflecting the latest design advances . . . and based on your exact needs.

For example, if it's a drive application—Link-Belt builds both roller and silent chain . . . five types of "Cushion Action" fluid drives . . . P.I.V. Variable Speed Drives with hydraulic, electronic, pneumatic or mechanical controls. Link-Belt also offers a broad line of precision ball and roller bearings.

At the show, stop at the Link-Belt booth to talk over your problems. If you won't be there, call the engineer in the Link-Belt office near you. He'll be glad to sit down with you and your own engineers—help you work out the most efficient answer for your requirements.

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pound in the polyethylene family. The diaphragm may be rubber, neoprene, or polyethylene, as required. The bonnet assembly is sealed off from the solution, and the valve has no stuffing box to leak. It can be serviced without removing from the line, and all parts are interchangeable. Available in all standard sizes from ½" to 2", threaded for standard pipe threads. Working pressure is 50 psi at 77 F. Also available with bodies molded of Ace saran. Especially suited for use with Ace Parian and saran pipe and fittings.

American Hard Rubber Co., 93 Worth St., New York, N. Y. (I-318).

New Bearing with Rollers Aligned at the Pitch Line

A new type of anti-friction bearing is said to be designed so that rollers cannot cock or skew—they are kept in alignment by cage contact at their pitch line. This reduces stress and tangential forces to an absolute minimum, the manufacturer claims; also, the overall efficiency of the cage is not affected by accumulated tolerance and wear of load-carrying surfaces since it is supported by the two integral flanges of the heavy outer race. "Pitchlign" bearings can be mounted horizontally or vertically and are especially adapted for use on high speed shafts.

Roller Bearing Co. of America, Whitehead Road, Trenton 3, N. J. (I-209).

Wick Feed Oilers for Use in Dusty Surroundings

Brass bodied, small capacity, wick feed oilers now available are simple, sturdy, and dustproof. They feed filtered oil; therefore dirt cannot reach bearings and injure them. Oil in body is carried through wick over standpipe to bearing by capillary action, assisted by a syphon effect. Light or medium bodied oils must be utilized. Wicks replaceable.

Oil-Rite Corp., 2318 Waldo Blvd., Manitowoc, Wis. (I-249).

"Job-Fitted" Intercom System with 11 Optional Features

Recently placed on the market was a "Talk-A-Phone" intercommunications system with eleven optional features designed so that a single system may be adapted to any specific requirement from a simple inter-office system to the most elaborate industrial layout. Optional devices include: busy signal, Redi-power, dynasonic performance, multimagic selector, privacy handset, earphone, right-of-way relay, hold-a-matic pushbuttons, silent touch bar, uni-trans and conference features. System can be delivered with all of these features or any combination required. As other features are required they can be added without obsoleting original equipment.

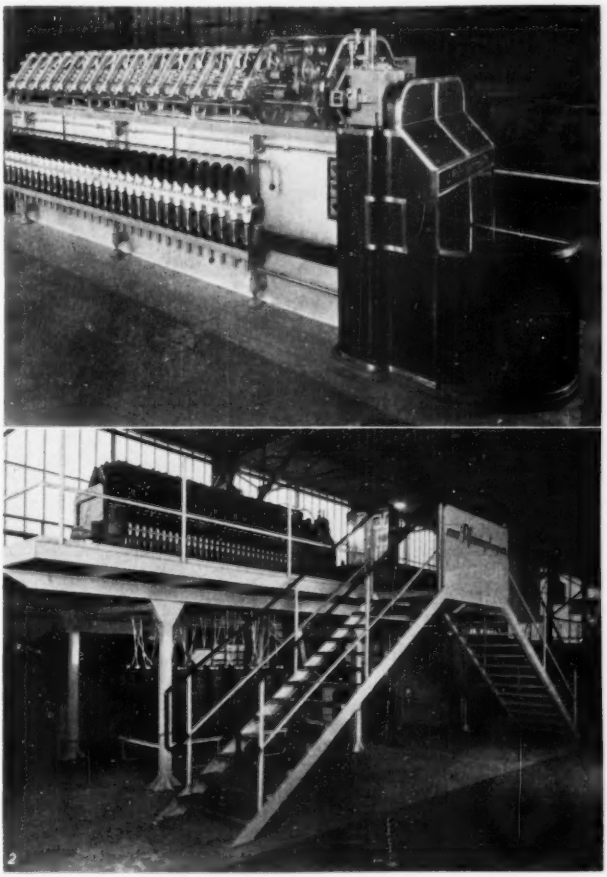
Talk-A-Phone Co., 1512 So. Pulaski, Chicago, Ill. (I-208).

Spinning Frame Makes Yarn from Sliver

A new German-made spinning frame for cotton and other staple fibers up to 40 mm in length spins yarn from sliver in one operation. Drafts of as much as 100 are obtainable, it is claimed. Sliver cans are placed underneath the frame and sliver is fed directly into the five-roll drafting mechanism.

Conventional spindle drive has been replaced by a tangential continuous belt drive; positive drive can

Top photo: close-up of Pfenningsberg high-draft frame. Lower photo: sliver cans are shown underneath frame.



What are you doing to

Reduce Waste?

Even if a mill does not maintain its equipment or purchase modern machinery, the mill still pays for it.

You are paying for the waste in your plant. Some waste is necessary, but excessive waste is a complete loss. You will continue to pay for excessive waste until it is reduced.

We specialize in reducing and controlling waste in the textile industry—whether the mill is running natural or synthetic fiber.

Don't pay us for our service. Only share with us what we save you.

Southeastern Engineering Co.
West Point, Ga.

Smooth!

SYNTHO-SOFTENER

For a smooth, soft, lofty hand with maximum draping qualities for all types of cotton, rayon, acetate, Bemberg, linen and nylon fabrics.

Advantages at a glance:

- **No effect on shades of dyed goods.**
- **Preserves maximum light fastness of dyed goods.**
- **Much less yellowing of whites than with ordinary cationics.**
- **Provides soft, smooth, velvety hand and excellent drapability on different fabrics.**

Syntho-Softener is a substantive synthetic softener in the form of a soft cream white paste. It is recommended for all types of hosiery, and imparts soft pliable hands to wool, silk and mixtures of these fabrics. Write today for your Syntho-Softener Technical Data Sheet.

Hartex Products:

Rayon Oils & Sizes	Finishing Oils	Scrooping Agents	Leveling Agents	Wetting-Out Agents
Nylon Oils & Sizes	Synthetic Detergents	Splashproof Compounds	Cationic Softeners	Weighting Agents
Kier Bleaching Oils	Conditioning Agents	Delustrants	Cotton Warp Dressings	Mercerizing Penetrants

HART PRODUCTS

THE HART PRODUCTS CORPORATION
1440 BROADWAY, NEW YORK 18, N. Y.

based on research

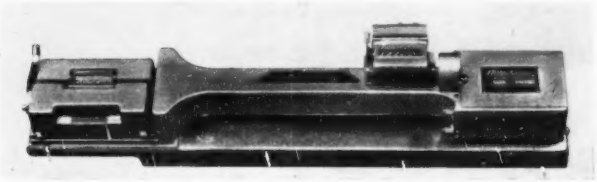
be supplied if preferred.

Since creels for roving bobbins are not required, operatives can more easily observe operation of the frame. Front to back width of frame is only 31.5". Blowers provided are reported to make frame practically dust and lint-free.

Other advantages cited by the manufacturer include: quality of yarn is as good or better than that made on conventional frames, increased production, an operative can tend more frames of this type.

Josef Pfenningsberg & Co., M. Gladbach (Rhld.), Siemenstrasse 20, Germany.

For additional data, request item I-313, using business reply card on page 286.



Trumeter measuring machine with predetermined counter added.

New Special Purpose Cloth Measuring Machines

Two double-unit measuring machines have recently been placed on the market: One is equipped with a predetermined counter for signals to the operator to stop his machine in time when pieces are divided in equal lengths.

The other was developed for use in dyeing and finishing plants, etc., where it is often necessary to measure each piece of fabric going through the continuous processing machines. To do this, two counters are fitted together. An internal clutch brings one counter into operation while the other counter is idle. This arrangement permits each piece of fabric to be measured singly by switching over from one counter to the other when the seam goes through. The yardage of the piece of fabric which has gone through can be read and recorded while the other counter is measuring the piece now going through, and so on.

Trumeter Company, 1265 Broadway, New York 1, N. Y.

For additional data, request item I-501, using business reply card on page 286.

Bobbin and Tube Tester for Top Tapered-Hole Sizes

The Model 2B bobbin and tube tester is now being marketed for easily and quickly testing the size of a top tapered hole on either wood bobbins or paper tubes. It may be readily adjusted to each mill's dimension requirements, the manufacturer states. Experience indicates that more than 1000 paper tubes or bobbins can be tested per hour.

The instrument consists of a small rectangular box into which several types of master spindles can be inserted. The movable sleeve located at the base of the spindle actuates microswitches for three colored lights.

In operation, a bobbin or tube is pushed onto the master spindle as far as it will go. The downward motion of the bobbin is stopped when its top is engaged on the spindle top. The bottom end of the bobbin will then have pushed the movable sleeve at the base of the spindle to some position below its normal resting position which is shown by a white light. The movement of the sleeve trips microswitches to throw on one of the other colored lights. The green light means a usable bobbin, the red light an unusable bobbin because the top hole is too large.

The manufacturer states that use of the device will result in avoiding yarn damage caused by improperly positioned paper tubes or damage to spindle tops by vibrating wooden bobbins.

Whitin Machine Works, Whitinsville, Mass.

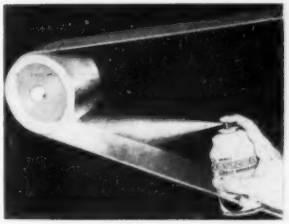
For additional data, request item I-301, using business reply card on page 286.

NEW Equipment AND MATERIALS

Belt Dressing Sprays On

A liquid belt dressing, "Grako (R) Clear," is now available in a 12-oz. spray container. Depressing valve with forefinger directs a powerful spray at belts and pulley faces. Package contains enough liquid to treat approximately 350 square feet of belting, manufacturer states.

Spray is directed at smaller pulley face where slippage is most likely to



occur. Fine mist of dressing is transferred evenly to belt where it is quickly absorbed by the leather fibers. Grako Sprazon is said to be a leather preservative, keep belts pliable and resilient, and impart a high coefficient of friction which prevents slipping.

Graton & Knight Co., 356 Franklin St., Worcester 4, Mass.

For additional data, request item I-315, using business reply card on page 286.

Jet Type Mixer

Designed specifically for wet mixing solids, and for emulsifying, homogenizing, and dispersing applications, the Barrington Jet Mixers are said to be unique in that they not only mix intensively without stratification but also accomplish the following: speed up mixing cycles, ac-

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TEXTILE PROCESSING CHEMICALS?
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Ortho-dichlorobenzene • Monochlorobenzene • Ammonium Chloride
SOLVAY
Alkalies Chemicals
Since 1881

celerate chemical reactions and dispersion, reduce particle agglomeration, produce uniform and homogenous dispersion of solids into liquids with excellent wetting out, mix with minimum incorporation of air, mix with little vortex and surface boil, and handle a wide range of viscosities. Jets come with interchangeable rotors and stators which, the manufacturer states, are easily maintained and replaced by inexperienced operators.

Barrington Engineering Corp., 110 West 40th St., New York 18, N. Y. (I-211).

Self-Priming and Standard Turbine Vane Type Pumps

For pumping hot and cold, clear and vaporous liquid, in moderate capacities, against medium or high heads, a complete line of self-priming and standard design turbine vane type pumps has been introduced. The designation Type TVE is given those close-coupled to face mount electric motors; flexible-coupled electric drive pumps are designated Type TVB. Both types are available with or without self-priming device. Impeller is only moving part. Liquid end can be easily disassembled for inspection and repair. Capacity range at 3500 rpm is up to 58 gpm; at 1750, up to 56 gpm. Head range at 3500 rpm is up to 800 ft; at 1750, up to 300 ft. Motor sizes up to 20 hp are available at 3450 rpm and up to 7½ hp at 1750 rpm.

Peerless Pump Division, Food Machinery and Chemical Corp., 301 West Ave. 26, Los Angeles 31, Calif. (I-210).

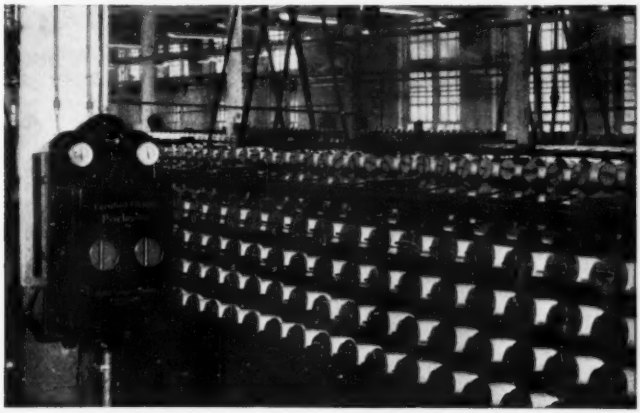
Polyvinyl Alcohols Made in Six Grades

Six of the most commonly used grades of polyvinyl alcohol are being manufactured under the trade name "Lemol." High viscosity and completely hydrolized Lemols are for compounding with polyvinyl acetate emulsions for sizing cotton and viscose yarn and other industrial uses. Medium viscosity, partially hydrolized Lemols are said to permit higher working concentration than other types as warp size for acetate and nylon yarns, etc. Also for sizing acetate and nylon yarns is a low vis-

Continuous and Graduated Humidification

Gradumatic Humidification

Controlled by the improved Certified Climate Psychrostat, Gradumatic Humidifiers operate continuously whenever moisture is needed.... A mere breath from each atomizer (as little as 2 pounds per hour) *at any time*, or as much as 16 pounds of fog-like vapor from each atomizer, if needed, *some of the time*. But Gradumatic humidification *all the time*.



Parks-Cramer Company

Fitchburg, Mass. PARKS Certified Climate Charlotte, N. C.

JENKINS' METLKOR®
BETTER BRUSHES FOR BETTER COTTONS

BRUSHING MACHINE

The widening uses and demands for cotton over past decades has created a number of new problems in production and finishing. M. W. Jenkins' Sons has designed and developed a special line of brushes to solve these problems. The results of this experience, research and development, in cooperation with leading textile mills and machinery manufacturers are available today in the highly efficient patented Jenkins' METLKOR brush.

This brush, with a permanent metal core, can be set with any bristle and can be rebristled when worn. Bound in place with corrosion-resistant metal and sealed in with solvent-proof plastic cement, the Jenkins' METLKOR brush is moisture-proof, acid- and alkali-resistant, will not sag, split or get out of alignment, is true balanced.

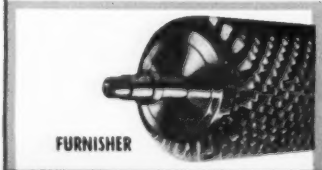
METLKOR brushes outlast other kinds of brushes and, in terms of service, are the most economical.

Whether you have a standard or special brush problem, Jenkins will manufacture to your specifications and needs, the right brush for the right job.

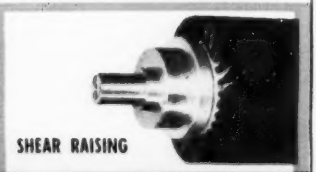
LIFEWOOD® *for wood core brushes and lags.*

OTHER METLKOR BRUSHES FOR COTTONS:

CARDING • SINGEING • BRUSHING PRIOR TO PRINTING • PRINTING BLANKET SCRUBBER, WASHER AND DRIER • BACK GRAY SCRUBBER • SOAPING • FURNISHER BRUSH CLEANING



FURNISHER



SHEAR RAISING

1877 • DIAMOND JUBILEE • 1952

M. W. JENKINS' SONS, INC.

Three-Quarters' Century of Pioneering Brushes for Industry

Cedar Grove, Essex County, New Jersey

TELEPHONE Verona 8-5327

NEW Equipment AND MATERIALS

cosity, partially hydrolized Lemol—the most water sensitive grade and least sensitive to added salts. According to the manufacturer, the Lemols provide tough water soluble resins combining high tensile strength, adhesiveness, and tear-resistance with extreme inertness to ageing, oxidation, and bacterial action.

American Monomer Corp., Leominster, Mass. (I-212).

Silicone Lubricant for Pressure Lubricated Valves and Flow Meter Bearings

"Valve Seal A" is described by the manufacturer as a non-melting lubricant that is especially useful in pressure lubricated plug valves, automatic control valves, flow meter bearings, ceramic plug cocks, and in pump packings. It is reported to have proven highly satisfactory where the life of conventional lubricants is seriously limited by extreme temperatures, corrosive chemicals, or steam. Retains its grease-like consistency at temperatures from minus 40 to 500 F, manufacturer claims; it will not break down to form gummy deposit on valve surfaces. Reduced maintenance costs, increased valve life, and continuous processing are benefits to be derived from use of this lubricant.

Dow Corning Corp., Midland, Mich. (I-213).

New Ball Valve Provides Tight Seating at 3000 psi

A new ¼-inch ball valve is recommended for working pressures up to 3000 psi. Tight, positive shut-off is provided by a stainless steel ball which closes into a machined, conical seat. The ball, retained at the end of the stem, is free-rolling so that every closing brings a new surface in contact with the valve seat.

Alignment of ball to seat is accurately piloted by a forged steel, union type bonnet, fitting tightly to the body and assuring a correct valve closure. Stem and packing gland made of stainless steel. Packing can be replaced without shutting off line pressure. Straight-through and angle types available with two and four connections. For liquid, gas, and steam service on such applications as meter manifolds, gauge lines.

The Foxboro Co., Foxboro, Mass. (I-214).

Saran Staple Fiber Now Available

Saran, a copolymer of vinylidene chloride manufactured by The Dow Chemical Co., is now available in continuous multi-filament or staple in various deniers.

For details of this development, see story on page 199.

Airfoil Centrifugal Fan

A non-overloading, centrifugal fan that is said to be over 90% efficient with only 1/3 of the noise intensity of previous models was designed especially for industry, power, and commercial building needs, the manufacturer states. Wheel sizes range from 40¼ in. to 108¾ in. diameter. Delivers volumes of air up to 600,000 cfm.

Westinghouse Electric Corp., Sturtevant Div., 200 Readville St., Hyde Park, Boston 36, Mass. (I-202).

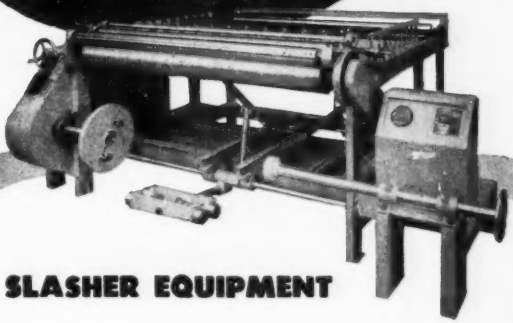
Totally-Enclosed Dual-Cooled Motor

For adjustable speed applications where the drive motor must be protected from bad atmospheric conditions and the unit must be enclosed and therefore cooled within itself, a totally-enclosed, dual-cooled motor equipped with a heat exchanger as an integral part of its own frame has been developed.

A 1½ hp, 3-phase, 60-cycle motor, built into the heat exchanger, runs at 3600 rpm to drive internal and external fans independently of the main motor itself. Advantages claimed: cleaning and maintenance are simplified, better overall cooling provided; use of smaller motors for a given horsepower is possible. Available in sizes up to 150 hp.

The Reliance Electric & Engineering Co., 1088 Ivanhoe Rd., Cleveland 10, Ohio (I-203).

INVESTIGATE
Tower
TEXTILE EQUIPMENT



SLASHER EQUIPMENT

High speed production is the keynote of Tower Slasher Equipment. Warp sizing costs are reduced. Uniformity in both the sizing of yarn and the winding of loom beams is assured by these modern TOWER units. Advanced size box designs and complete instrumentation give quality control at all speeds. Turned and polished rolls, anti-friction bearings throughout and welded steel frames maintain perfect alignment at continuous high speed operation. Multi-motor drive precisely controls tension and stretch from creel to loom beam.

Visit our exhibit at the 17th Southern Textile Exposition
October 6-11, Greenville, South Carolina.

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IRA L. GRIFFIN AND SON
P. O. BOX 1576
CHARLOTTE, NORTH CAROLINA

Northern and Canadian Representative
LINDER AND COMPANY, INC.
296 NORTH BEACON STREET
BOSTON, MASSACHUSETTS

Tower Iron Works
Established 1835
50 BORDEN STREET, PROVIDENCE 3, RHODE ISLAND

We'll be at Booth 262 to Greet You —

We've been answering many questions in an effort to help textile men improve their spinning and twisting of nylon, worsted, orlon, vicara, acrilon, wool, dacron, rayon, cotton, dynel, fiber glass, pure silk and others.

Let's discuss *your* problems during your stay at the Southern Textile Exposition in Greenville, S. C. The HERR CONICAL RINGS and specially-designed travelers will help you speed up production and improve quality . . . See you at Booth 262!

Hyatt B. Attwood
Charles M. Kilgmiller

HERR

MANUFACTURING CO., INC.

310 FRANKLIN STREET, BUFFALO 2, NEW YORK

FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON AND BLENDED YARNS OF ALL TYPES

NEW Equipment AND MATERIALS

New Era Filling Spindle

A New Era spindle has now been developed for filling type spinning frames. The only change in this spindle over that of the New Era spindles for warp frames and twisters is that the main shaft is shorter and mounts two anti-friction bearings.

The top bearing is located near the shoulder above the top flange of the whorl, and the bottom bearing is located just inside the lower end, just about the center of the tape pull.

According to the manufacturer, the spindle will show a definite power savings, eliminate the usual oiling routine, and prevent oil staining of the yarn.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

For additional data, request item I-302, using business reply card on page 286.

Warwick Chemical Changes Name of Noraset Resin

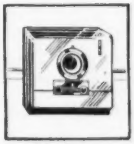
Noraset, Warwick Chemical Company Division's new hydrophobic resin which imparts durable water repellency, crush resistance, spot and stain resistance, and shrink resistance in a single product, will henceforth be known as Norane Four Star, the manufacturer states. This change was made in order to avoid confusion between other trade names in the textile industry and to associate Norane Four Star more closely with Norane, a durable water repellent merchandised by Warwick for over ten years.

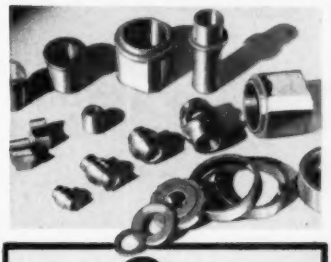
Warwick Chemical Co. Division, Sun Chemical Corp., 10th St. and 44th Ave., Long Island City 1, N. Y. (I-204).

Collarette Cutter Has Automatic Cloth Loader, New Guide Wheels

Outstanding features claimed for the new Special Wonder Bias Collarette Cutter are: (1) automatic cloth loader — the automatic roll feed makes it possible for the operator to get cloth automatically from the roll on the table by merely pressing a foot pedal; this eliminates having to stop the machine and pull cloth from roll by hand and also eliminates the necessity for filling table with

Ideal for certain applications


Washers

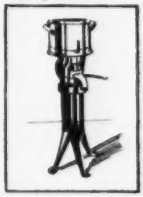


Electric Motors

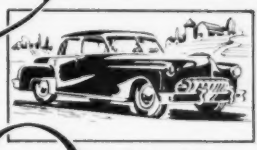
Cotton Pickers

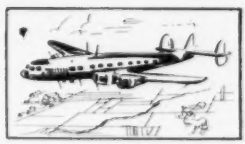
JOHNSON Ledaloyl SELF LUBRICATING BEARINGS and parts

Cream Separators



Business Machines


Automobiles


Airplanes

THESE low cost, porous, self-lubricating bearings may be the answer to some of your bearing problems. If so, you will make substantial savings. Johnson Ledaloyl Bearings and Parts are molded under high pressure from powdered metal . . . no machining necessary . . . hence the low unit cost in large quantities. Some industrial applications are: places difficult or impossible to lubricate, uses where heavy duty service is not a factor, installations requiring self-aligning bearings, and others. New uses are being discovered every month. Johnson engineers will gladly help you to determine whether you can use Ledaloyl bearings to your advantage. Write today.

Popular sizes of straight, flanged and self-aligning bearings available from stock. Write for catalog.

JOHNSON BRONZE COMPANY
550 South Mill St., New Castle, Pa.

JOHNSON JB BEARINGS
Sleeve-Type

COMING OCTOBER 6th

BLENDING and PREPARATORY PROCESSING *for SYNTHETICS*

Learn the most recent achievements in the fast moving field of synthetics processing . . . from the men who have been the pace-setters in the development of this equipment.

UP TO THE MINUTE INFORMATION ON DRYING EQUIPMENT

Complete information on modern Proctor drying equipment for every textile drying need—together with last minute word on some very interesting active developments—the nature of which cannot be divulged until show opening.

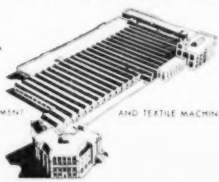
OPEN HOUSE and MOVIES

All during show week the new Proctor reclothing branch at Spartanburg will be open for inspection—with transportation provided from Greenville. Sound, color movies of late Proctor equipment in operation will be shown regularly for visitors to the branch.

Here is a three-fold program that no progressive textile man can afford to miss. It incorporates up-to-date technical information for every phase of the textile industry—from fiber preparation—through to finishing. The information available at the Proctor exhibit represents the results of intensive research and development work on the part of Proctor engineers—work that has been pursued with but one goal in mind—better and more efficient processing for you! We'll be expecting you in Greenville.

PROCTOR & SCHWARTZ • INC •

610 TABOR ROAD
PHILADELPHIA 20, PA.



MANUFACTURERS OF INDUSTRIAL DRYING EQUIPMENT AND TEXTILE MACHINERY

NEW Equipment AND MATERIALS

a lot of cloth. (2) New guide wheels make it easier for operator to guide cloth through the knives, providing increased production.

J. A. Firsching & Son, Inc., 421-423 Broad St., Utica, N. Y. (I-205).

Commercial Vacuum Cleaner

Powerful suction produced by a 1 hp motor and series of fans, compact and durable design, lightweight, quiet operation, tools for every purpose, and ability to handle both liquids and dry materials are features cited for the new "Alaco" commercial vacuum cleaner. 10 gallon dust capacity or 1¾ bushels. Tank may be easily emptied by removing cover.

The Ace Co., 112 W. Washington St., Ocala, Fla. (I-206).

Pocket-Size Instrument for Noise Level Measurements

Industrial uses for a smaller, lighter in weight, and easier to use Sound Survey Meter GR Type 1555-A include measurement of machinery noise and deafness risk surveys. Although shaped to fit the hand, it can be set on a table or mounted on a tripod. Only two controls are used

and both are mounted on the front together with the large easily read meter. Can be carried in pocket. Leather carrying case is also available. Range, 40 to 136 decibels. Three frequency weighting networks provided.

General Radio Co., 275 Massachusetts Ave., Cambridge 39, Mass. (I-235).

Cut the Cost to Fit the Pattern

CHOOSE CLARK

You have a pattern approved for the development of your business—a pattern for healthful growth in volume. Every good businessman has that; and he knows that in order to achieve his objectives, he must *cut his cost to fit his pattern.*

The surest and most effective way of cutting cost to fit any industrial pattern is to use CLARK EQUIPMENT in materials handling operations.

CLARK EQUIPMENT has enabled many, many Textile plants to make drastic reductions in handling costs. They are used with great profit in all operations entailing handling, from receiving raw cotton, wool and synthetic components, through processing, storage, shipment and delivery.

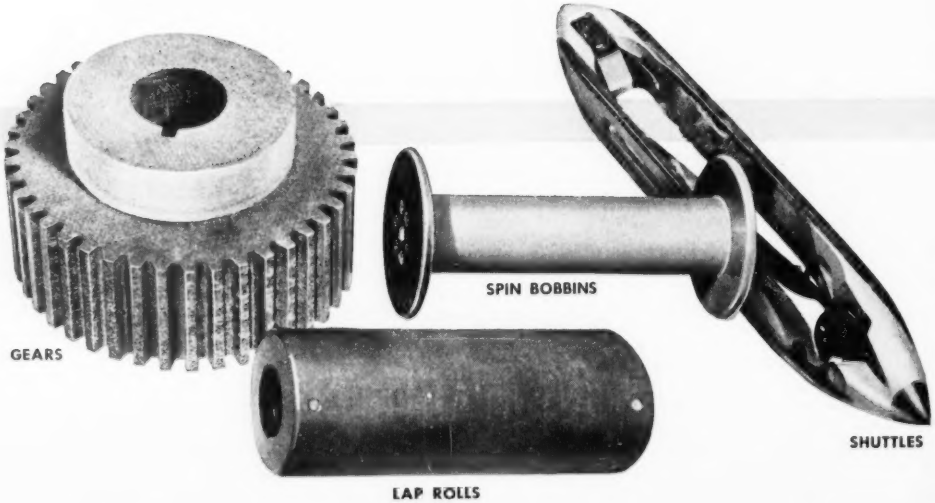
It is one thing to learn about these remarkable CLARK machines through the printed word—but it's far easier and better to *see them in action*—yes, and far more convincing.

You can do just that at the great Southern Textile Exposition, Greenville, South Carolina, October 6-11. Arrange to attend; and make a special point of seeing the CLARK exhibit and demonstrations. These are sure and practical steps toward *cutting your own costs to fit your pattern* for bigger, better business.

CLARK ELECTRIC AND GAS POWERED FORK TRUCKS
AND POWERED HAND TRUCKS • INDUSTRIAL TOWING TRACTORS

INDUSTRIAL TRUCK DIVISION • CLARK EQUIPMENT COMPANY • BATTLE CREEK 61, MICHIGAN
Please send: ☐ Material Handling News ☐ Movie Digest ☐ Have Representative Call
Name
Firm Name
Street
City Zone State
AUTHORIZED CLARK INDUSTRIAL TRUCK PARTS AND SERVICE STATIONS IN STRATEGIC LOCATIONS

here's why... MORE and MORE mills are turning to micarta®...



because of these qualities . . .

Saves Weight, weighs half as much as aluminum.
Resists Compression, pound for pound greater than steel.
Resists Impact, absorbs and withstands severe shock.
Withstands Vibration, cushions repeated shock without effect.
Insulates like mica but greater flexibility.
Resists Corrosion, not affected by acids, oils, fumes.
Resists Heat and Cold from −112 F to 212 F.
Resists Moisture, in fact, water is its best lubricant.
Wears Slowly, Evenly, in many cases more slowly than metal.
Reduces Noise, absorbs vibrations, deadens noise.
Fabricates Easily, machined or punched with ordinary tools.

because of these flexibilities . . .

Laminated MICARTA includes standard structural shapes: plates, sheets, angles, channels, rods, tubes and zees. Occasionally this class includes simple molded shapes.

Molded MICARTA is the choice for complicated shapes, large production quantities of either simple or complicated shapes, or for certain properties better obtainable in form molding.

because micarta is basic

MICARTA is a tough and resilient basic material that welcomes comparison with other basic materials. This versatile plastic outlasts wood and metal in many punishing applications. Investigate MICARTA and you'll find it the economical solution to tough production problems.

YOU CAN BE SURE... IF IT'S
Westinghouse
micarta

for more information on how MICARTA can help solve your production problems, and give you advantages no metal can give you, please fill out the coupon below. A MICARTA representative will then call on you personally.

mail it today!

Westinghouse Electric Corporation
MICARTA Division, Trafford, Pa.
Attention: L. A. Pedley

Sir: (Please Check One)

☐ Please have your representative call
☐ Please send me the complete facts on MICARTA

Name_____ Company_____
Address_____
City_____ Zone_____ State_____

J-06501-A

Stehedco and Southern

14-12

World Famous "Quality" SOUTHERN SHUTTLES possess Eye, Tip and Grip Features which give them longer, more productive shuttle life.

NEW Equipment AND MATERIALS

Roth Single-Belt Unit Can Now Be Converted to Double-Belt Drafting System

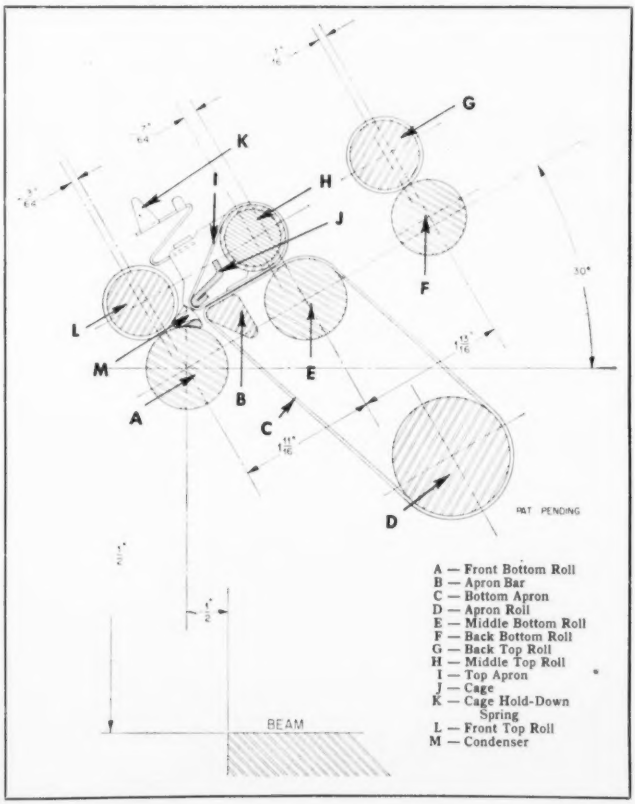
Increased fiber control and higher drafts are principal advantages to be derived from the new Saco-Lowell Duo-Roth drafting element which, the manufacturer reports, can be easily and quickly applied to existing Roth drafting units at minimum expense and with a minimum amount of frame stoppage.

The Duo-Roth changeover, when applied to a standard Roth drafting element, converts the Roth single-belt unit into a double-belt drafting system, with the top belt or apron replacing the standard Roth middle top roll and control roll. The changeover consists of a Torrington needle-bearing middle top roll, two cages, two top synthetic aprons, two bottom synthetic aprons, a condenser assembly, and a hold-down spring for the cages. These parts will equip two spindles.

Other advantages claimed for the Duo-Roth system are: (1) It is readily accessible for cleaning and very flexible in its ability to handle the entire range of long and short staple cotton fibers; (2) a tight bottom apron is maintained; (3) fly or lint on the inside of the bottom apron can be easily removed because of the apron's long length and more open position.

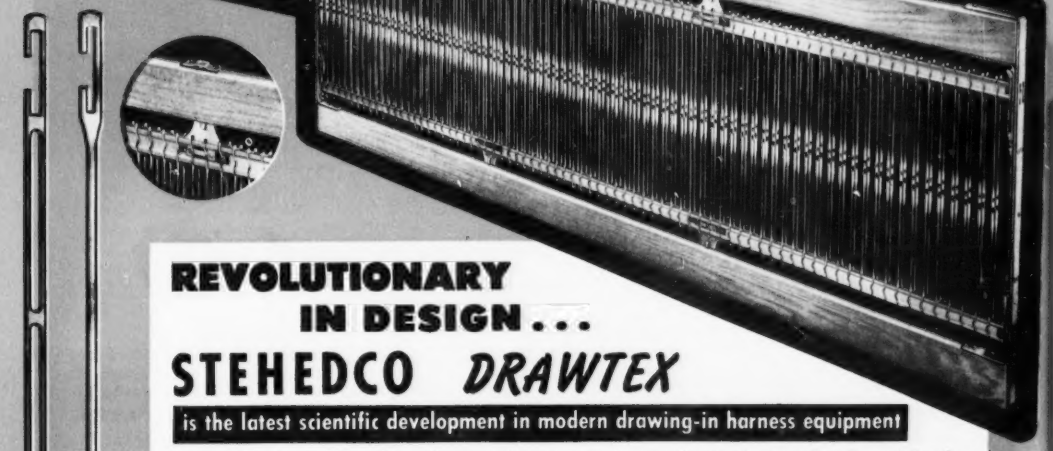
To take advantage of the greater

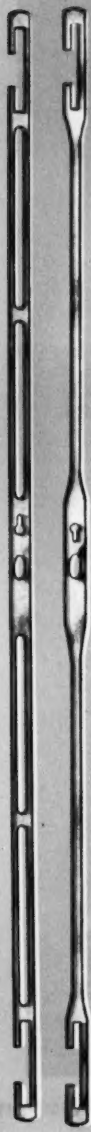
Cross-section drawing of Saco-Lowell Duo-Roth drafting arrangement.



Stehedco and Southern

Adding or removing heddles is simple — you merely twist the open section.





REVOLUTIONARY IN DESIGN . . .

STEHEDCO *DRAWTEX*

is the latest scientific development in modern drawing-in harness equipment

It's another in the long line of patented accomplishments pioneered and developed by the STEEL HEDDLE MANUFACTURING COMPANY.

Primarily designed for use with the Barber-Colman Drawing-In Machine, STEHEDCO DRAWTEX automatically prevents openings in the warp. It eliminates the necessity for the weaver or fixer adjusting the heddles at the supporting hooks.

You can get STEHEDCO DRAWTEX frames in single and double bar construction. It gives you a continuous slide for the heddles —without interruption of any kind. The conventional supporting hook for the heddle rod is completely eliminated and special rod hook allows the heddle to slide the full length of the frame.

With STEHEDCO DRAWTEX all heddles are free to float and find their proper position as they spread over the width of the cloth being woven.

Heddle rods are much wider, giving much more strength to the frame. They eliminate sagging in harness. Frame ends are completely flush to give maximum frame length use in any loom.

Consult our staff of Field Engineers for full information on this revolutionary development in modern drawing-in harness equipment.

SEE US IN BOOTH NO. 137—SOUTHERN TEXTILE EXPOSITION, GREENVILLE, S. C.

1-L-12

STEHEDCO DRAWTEX heddles are made of selected tempered steel to give extreme flexibility with maximum wearing qualities.

STEEL HEDDLE MFG. CO.

2100 W. ALLEGHENY AVENUE PHILADELPHIA 32, PA.

Other Offices and Plants

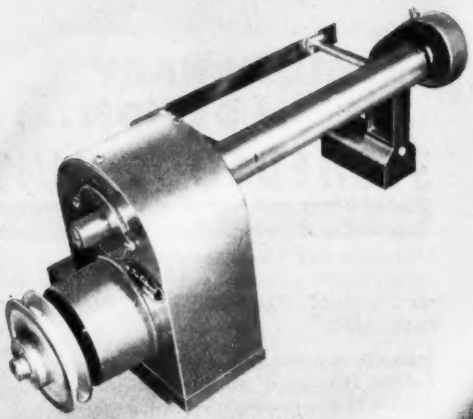
Greenville, S. C. • Atlanta, Ga. • Greensboro, N. C. • Providence, R. I.

SOUTHERN SHUTTLES Paris Plant . . Greenville, S. C.
A Division of STEEL HEDDLE MFG. CO.

STEEL HEDDLE COMPANY OF CANADA LIMITED
310 St. Hubert Street Granby, Quebec, Canada

The New Improved Colonel—the only Comb Box with Self-aligning Tail Stand, representing the latest comb box development—will be shown at the Greenville Show, October 6-11.

Visit our Booth #115



ODOM MACHINE MFG. CORP., ROSWELL, GEORGIA

Harry A. Haynes
P. O. Box 1724
Chattanooga, Tenn.

O. T. Daniels
Textile Supply Co.
Dallas, Texas

William R. Fox
P. O. Box 380
Providence, R. I.

Ben Comer Machy. Co.
(Foreign Rep.)
Atlanta, Ga.

M. T. Meadows
Buenos Aires
Argentina

NEW Equipment AND MATERIALS

drafting capacity of the Duo-Roth and to allow the use of a variable break draft, the manufacturer recommends that frames be equipped with new Shaw draft gearing.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

For additional data, request item I-303, using business reply card on page 286.

Machine Seals Polyethylene Bags

A jaw type heat sealer has been developed primarily for sealing bags made of polyethylene of from 1 to over 10 mils in thickness. It is only necessary to vary the pressure, heat, and length of dwell to seal varying thicknesses, the manufacturer states. For table mounting and foot pedal operation.

Pack-Rite Machines, 407 E. Michigan St., Milwaukee, Wis. (I-250).

Flow Colorimeter Simplifies Continuous Analyses of Process Operations

For such applications as continuous indication of color and turbidity in industrial waste waters and for dyebath analyses in the study of exhaustion rates, is the Beckman flow colorimeter recently developed. Total spectral range from 350 to 1000 millimicrons. Analytical accuracy to within 0.5%

Beckman Instruments, Inc., South Pasadena, Calif. (I-251).

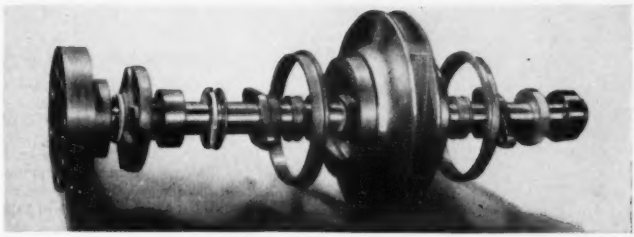
Fast Setting, Long Lasting Floor Patching Material

A new fast-setting floor patch material is reported to contain metallics and pure rubber latex, and to have a strength approximately 250% greater than ordinary floor patch materials. Can be applied to wet or dry cement, concrete, asphalt, brick or mastic floor by a single handyman, it is claimed. Hole or fissure is swept clean and primer brushed into depth and sides. After this has set for few minutes, "Das-Patch" is used as taken from drum and tamped level after hole is filled. Within five to ten minutes after tamping, truckloads up to 20 tons may be driven over patched areas without fear of damage.

Dasco Chemical Co., Inc., Baltimore, Md. (I-252).

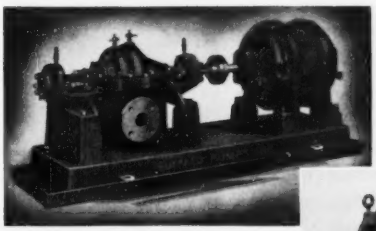
"Buffalo" Tips on Better Pumping

THE IMPORTANCE OF GOOD IMPELLER CONSTRUCTION



The impeller, being the part of the pump that moves the liquid, is naturally subjected to the most punishment in the form of shock, abrasion or corrosion, depending on the hydraulic conditions.

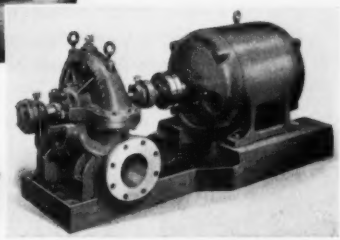
Above is the rotor and shaft assembly of a "Buffalo" Type "SL" Double Suction Pump for clear water service. The shaft is oversize. It is machined of high grade steel, bronze covered, or solid monel metal or other alloy. The bronze impeller is mounted on an enlargement of diameter at the center of the shaft and secured by feather key and lock nuts. The impeller is hydraulically balanced—always receiving water from opposite sides in equal volume and pressure. The entire assembly is also in perfect dynamic balance for vibrationless performance. Such an impeller is not only highly efficient in its liquid handling, it is built to stand continual service. Another example of heavy-duty, high-efficiency construction is the popular "RR" Pump shown at left. Available in 2 and 4 stage models for pressures up to 500 lbs., it is widely used for boiler feed and other clear water service.



"Buffalo" Type "RR" Pump

•

"Buffalo" Type "SL" Pump



FOR ALL ENGINEERING DATA on "Buffalo" clear water pumps, write today for Bulletins 980 and 955-P.

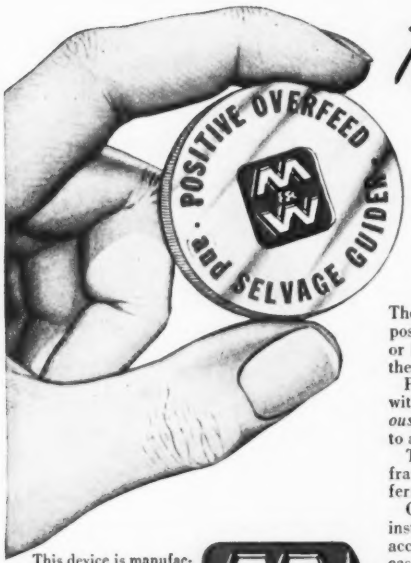
"Buffalo" BUFFALO PUMPS, INC.

171 MORTIMER STREET BUFFALO, N.Y.

Subsidiary of Buffalo Forge Company

Canada Pumps, Ltd., Kitchener, Ont. Sales Representatives in all Principal Cities

A BETTER CENTRIFUGAL PUMP FOR EVERY LIQUID



Report for Cloth Finishers...

Regulation −5% to +30%
Speeds to 100 yds. per min.
Handles all fabrics, weights, finishes, colors and shades
Attaches to any tenter frame
Transfers easily frame to frame
Operates on a new principle
Fully adjustable, holds 1/16" tolerance

HERE ARE THE PROFIT POINTS—

The M&W Positive Overfeed with Selvage Guider regulates overfeeding positively and uniformly from −5% to +30% for all fabrics, of any weight or finish, at speeds up to 100 yds. per minute. A turn of the wheel changes the amount of overfeeding.

Pinning of each selvage on the tenter chain is adjustable, can be held within 1/16" tolerance. A photo-electric cell engages selvage—*instantaneously* corrects sidewise variations, is adjustable to react with equal efficiency to all shades and weights of fabric.

This all-ways adjustable unit attaches to practically all existing tenter frames (when equipped with M&W pin type tenter chains), is easily transferred from one frame to another.

On a wholly new principle, guider arm brings cloth to meet the rails, instead of rails to meet the cloth—gives you greatly increased speed and accuracy by moving ounces of aluminum instead of hundreds of pounds of cast iron.

Write today for free bulletin!

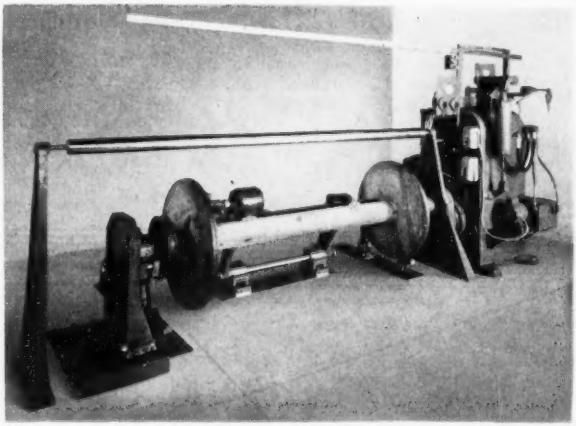
This device is manufactured exclusively in the U.S.A. under license from John Dalglish & Sons Limited of Thornliebank, Glasgow. Have us estimate the advantages of installation for *your* plant. Get our prompt cost-cutting counsel without obligation.

MARSHALL and WILLIAMS CORPORATION
PROVIDENCE, R. I. • GREENVILLE, S. C. • NEW YORK, N. Y.

THERE ARE MORE PLUS ADVANTAGES FOR YOU in the

ALLEN Hi-Speed Beamer

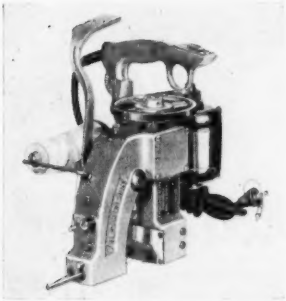
Loom beams will produce better results and hold increased yardage when made on the Allen Hi-Speed Beamer. Beams start smoothly . . . attain greater speeds . . . stop on a dime. These desirable features are made possible through a sensitive, variable speed drive and Electric braking system. Compressor unit, Hydraulically controlled, *features and guarantees* Uniform End Density. Handy Safety Control Rod and Hydraulic Doffing makes work easier on operators. Write for details on this and other Allen Equipment.



Allen Warper COMPANY
40 CHURCH STREET, LOWELL, MASSACHUSETTS

Manufacturers of Quality WARPERS • BEAMERS • BALLERS • COMBS • CREELS • TABLE WARPERS and all WARPING EQUIPMENT. Replacement parts for SACO-LOWELL • ENTWISTLE and ALLEN WARPERS

NEW Equipment AND MATERIALS



Portable bag closer (Fischbein).

Portable Electric Bag Closer

This portable electric Bag Closer is believed to have application in the textile industry since it closes bags made of all types of fabrics and a large variety of paper bags.

Weighing only 10½ pounds, this completely portable sewing machine is unconditionally guaranteed by the manufacturer. The operator simply carries the machine to the bags and plugs it into any 110-volt electric outlet. It is said that he can close 200 bags per hour with ease.

Dave Fischbein Co., 38 Glenwood Ave., Minneapolis, Minn.

For additional data, request item I-308, using business reply card on page 286.

Transparent Tape Features Heat and Chemical Resistance

A new transparent pressure-sensitive tape is reported to be especially suited for splicing rolls of fabric in manufacturing and treating operations, and for various packaging, edging, and reinforcing applications.

Designated "Scotch" brand pressure-sensitive tape No. 850, it possesses "excellent" resistance to acids, alkalies, acetones, ketones, hydrocarbons, esters, and other common solvents, the manufacturer claims.

Other properties (for ½-inch-wide tape) are said to include 15 pounds tensile strength, 120% elongation, and 20 ounces of adhesion. In addition, the tape retains its flexibility at very low temperatures, and has high dimensional stability despite heat and

Why Good Pipe Fitters Choose RIDGID 4P Geared Pipe Threader

No. 4P, 2½" to 4" pipe

Extra easy to carry and put on pipe

★ Balanced loop handles—easy to swing 4P where you want it.

★ Mistake-proof workholder sets to size *before* put on pipe—only one set screw.

★ Practically no upkeep—drive pinion in oilless bronze bearing; safe enclosed gear.

★ 4 sets of 5 high-speed steel dies for 2½", 3", 3½", 4" pipe. Ratchet handle; RIDGID Universal Drive Shaft available. Also special 4P for conduit.

★ Buy efficient 4P at your Supply House.

THE RIDGE TOOL COMPANY • ELYRIA, OHIO

RIDGID Work-Saver Pipe Tools

MECHANIZE 4 Scrubbing Operations into 1

with a COMBINATION SCRUBBER-VAC!

Applies cleanser, scrubs, rinses, and picks up—in ONE operation!

Here's a timely answer to the need for conserving manpower and reducing labor costs—*a single cleaning unit that completely mechanizes scrubbing.* A *Combination Scrubber-Vac* applies the cleanser, scrubs, rinses if required, and picks up (damp-dries the floor)—*all in one operation!* Maintenance men like the convenience of working with this single unit... the thoroughness with which it cleans... and the features that make the machine simple to operate. It's *self-propelled*, and has a *positive* clutch. There are no switches to set for *fast* or *slow*—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs efficiently and quietly.

Model 213P Scrubber-Vac at left, for heavy duty scrubbing of large-area floors, has a 26-inch brush spread, and cleans up to 8,750 sq. ft. per hour! (Powder dispenser is optional.) *Finnell* makes *Scrubber-Vac Machines* in a full range of sizes—for small, vast, and intermediate operations—and in *self-powered* as well as *electric* models. From this complete line, you can choose the size and model that's exactly right for *your* job (no need to *over-buy* or *under-buy*). It's also good to know that you can lease or purchase a *Scrubber-Vac*, and that *there's a Finnell man nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1309 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

Conserve Manpower with Completely Mechanized Scrubbing

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines

Everything FINNELL for Floor Care

BRANCHES IN ALL PRINCIPAL CITIES

See the Finnell Exhibit • **Southern Textile Exposition** • **Greenville, S. C.** • **Oct. 6 - 11** • *Space 110*

humidity changes. Its polyester film backing is said to be two to eight times stronger than other plastic films.

Available in standard ¼- to 1-inch widths on 2,592-inch rolls. Wider widths and longer roll sizes will be made on special order.

Minnesota Mining and Manufacturing Co., 900 Fauquier Street, St. Paul 6, Minn. (I-316).

Self-Lubricating Material for Bearings and Other Parts

Self-lubricating bearings, bushings, seals, contacts, and other parts can now be made economically to specifications in small or large quantities from carbon and graphite rods impregnated with metal, the manufacturer reports. Known as Carbolube, the material is said to have extra long life in high or low temperature applications because of its inherent lubrication and homogenous structure.

The metals usually used for impregnation are babbitt, copper, cadmium or silver. Metal content can run as high as 70% by weight. Graphite is the lubricating medium. Coefficient of expansion is said to be about one-half that of steel. Available in sizes up to 10" in diameter, and in almost any shape or form.

The Carbone Corp., Boonton, N. J. (I-317).

Static Eliminator for Tricot Fabric Spreader

A device that removes static electricity from tricot fabrics and facilitates the spreading of the material for cutting, is now being incorporated on CRA electric tricot spreading machines, the manufacturer reports.

The neutralizer bar, containing multiple pins, is set on the machine, just in front of the feed roller, and "pulls" the electric static from the cloth as the machine rides along. A guard protects the pins against damage.

The static eliminator is optional for new machines, in either wide or narrow models, and is also available for CRA tricot spreaders already in use.

Another item on new tricot spreaders is the measuring tape rewinder which automatically takes up the

HOW TO GIVE YOUR FLOORS A FUTURE
(Above) Dark oil-soaked floor maintained by scrubbing. (Right) Similar area, same dirt conditions, but TENNANT dry-cleaned.
An example of results you can get with the
TENNANT
System OF FLOOR MAINTENANCE
To be SURE of bright, easy-to-clean floors in your mill—both now and for years to come—no other maintenance method is more effective than the TENNANT SYSTEM.
It not only reconditions dark, spongy, water-softened floors . . . it restores original brilliance . . . hardens, seals and protects against dirt and traffic . . . cuts cleaning costs.
KEEPS FLOORS BRIGHT by fast mechanized dry cleaning. Eliminates scrubbing.
MAKES FLOORS EASY TO CLEAN. Dirt cannot readily adhere to smooth-sealed floors. Wipes off easily.
CUTS MAINTENANCE COSTS by saving manhours. Floors clean up like magic and stay clean much longer than when scrubbed. Floors stay dry, hard, lustrous; reduces slip hazards.
G. H. TENNANT CO.
2524 North Second Street
Minneapolis 11, Minn.
Write today!
Get typical case histories, photos, and NEW bulletin "How to Get Better Results in Textile Floor Maintenance."
TENNANT FLOOR MAINTENANCE System
Established 1870
OFFICES IN PRINCIPAL CITIES

Looking for you at BOOTH 105

first floor on the right

in Textile Hall GREENVILLE

We'll show you why Ragan Rings run longer and smoother, with fewer delays for replacement. And we hope to surprise you with a remarkable new Ragan development.

Ragan Rings

RAGAN RING COMPANY, the only manufacturers of Textile Rings in the South, 866 Murphy Avenue, P. O. Box 174, Station A, Atlanta, Ga.

Representatives: John Foard, P. O. Box 574, Newton, N. C. • Arthur Harris, H. B. Askew, 443 Stonewall St., S.W., Atlanta, Georgia
Henry Nersey, Dean Thomas, 44 Norwood Place, Greenville, S. C.

BLACKS

ACID • DIRECT • ACETATE • FORMALDEHYDE

Consult your local dyestuff distributors for information and samples. Shipments can be made from their convenient stocks or from our Baltimore and Paterson warehouses.

YOUNG ANILINE WORKS, INC.

Office and Factory
2731 Boston Street, Baltimore 24, Md.

Paterson Office
50 East 13th Street, Paterson, N. J.

tape as the machine rides along, winding it on a bar located on the back of the machine. The rewinder is standard equipment for the electric tricot spreader.

Cutting Room Appliances Corp., 45 West 25th St., New York 10, N. Y.

For additional data, request item I-502, using business reply card on page 286.

Guardrail Protects Walls from Tow Trucks, etc.

Originally developed to promote highway safety, Flex-Beam Guardrail is now being used to protect walls, partitions, parking lots and other "bump-spots" in industrial plants where there is danger of tow-

trucks and cars bumping into walls and stationary equipment.

It is a beam-type rail, deeply corrugated for strength and erected without tension. It is fabricated from semi-spring quality steel and punched for mounting on 12'-6" centers. Splicing is by seven bolts. A waterproof, rust-inhibiting paint primer is applied after fabrication.

Armco Drainage & Metal Products, Inc., Middletown, Ohio (I-256).

New Finish Improves Sewability of Fabrics

A new finish, Velubra-H, improves the seam efficiency and sewability of fabrics, according to the manufacturer.

There is said to be no yarn severance in sewing when fabrics are treated with a 5% solution of Velubra-H. In normal seaming operations on untreated fabrics, 13% of the warp threads are severed, the an-

PRODUCTIMETER Progress

Since the last TEXTILE SHOW DURANT has INTRODUCED...

1 PICK COUNTER (Model 4-PC-R-3) — Introduction of this improved model provided better readability and easier operation. The heavy drive construction assures trouble-free performance. It is tamper proof, dust proof and rust proof.

2 "Y" ELECTRIC — High speed, accurate, with maximum readability. Totally enclosed in compact new type case for protection against dust and moisture. Operates accurately over wide current fluctuations.

3 New Finish on Entire Line! Attractive Alaska Gray and Seal Brown Combination.

NOW DURANT proudly announces the new DURANT DOFFMETER

See this newest Productimeter at the Textile Show — Booth 127

Field-tested on looms and other textile machines for several months, let the following Durant personnel tell you about it . . . R. B. Winkler, Secretary & Sales Manager • Harold V. Barker, Southern Regional Manager • Leo A. Nourie, Eastern Division Manager.

also DURANT SALES ENGINEERS in attendance

DURANT MANUFACTURING COMPANY

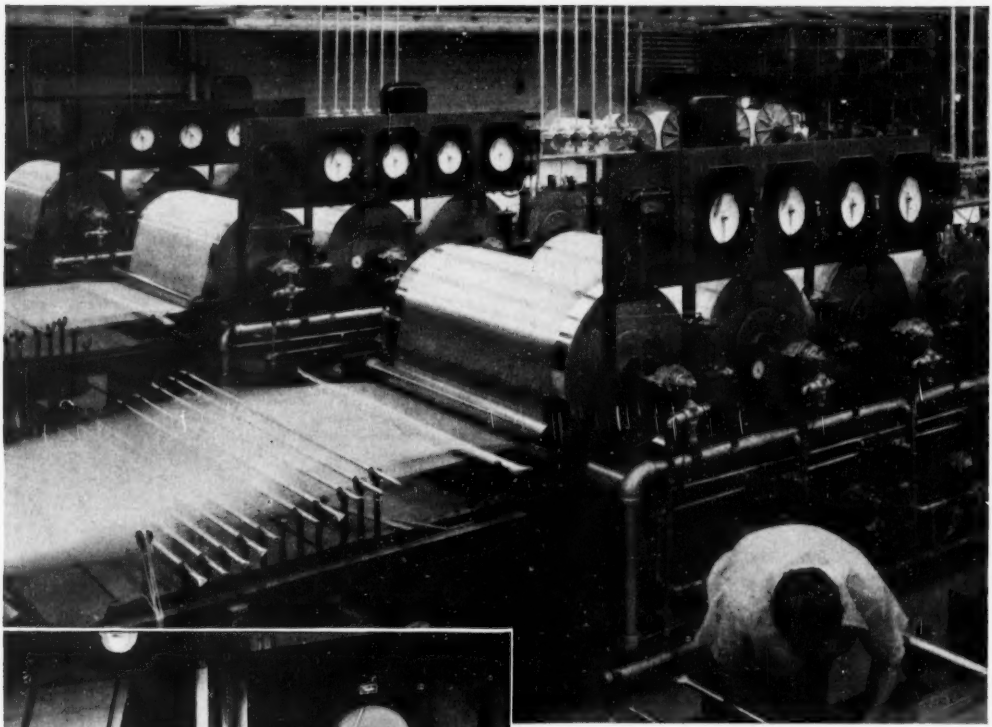
1973 N. BUFFUM STREET MILWAUKEE 1, WISCONSIN

P. O. BOX 3598 HB-73 GREENVILLE, S. C.

173 ORANGE STREET PROVIDENCE 3, R. I.

Representatives in Principal Cities

TAYLOR IS SHOWING



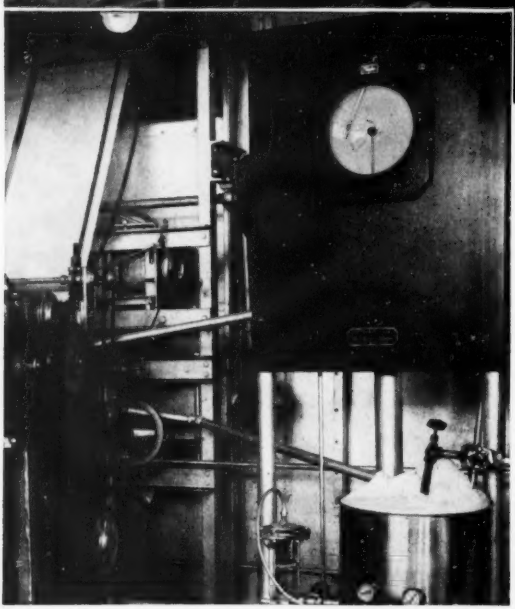


PHOTO ABOVE

Taylor keeps these modern High Speed Slashers under accurate control, regardless of operation temperature requirements. Control of condensate gives closest possible relationship to cylinder surface temperature to produce a properly slashed warp. Taylor's system of quick, automatic heat-up eliminates time lost waiting for traps to empty.

PHOTO AT LEFT

Fewer rejects on knit fabric due to more accurate control of specific gravity of the sizing solution. Recorders or controllers available with direct-reading Twaddle scale.

PHOTO ON OPPOSITE PAGE

Taylor controlled piece-dye kettle at a large eastern knitting mill showing Taylor FULFLEX* Time Schedule temperature controller which assures uniform dyeing conditions, cuts operating costs, preserves quality of dyed fabric and eliminates expensive human error.

COST CUTTERS IN BOOTHS 427-8-9

DROP in and let's discuss how Taylor can help you cut costs on almost any mill operation. You'll see on display—

1. Roll or Nip pressures more accurately measured and recorded by VOLUMETRIC RECORDERS.

2. Faster, more accurate measuring elements provided by TRANSAIRE* temperature and pressure transmitters.

3. Precise control with single knob adjustment to tune in the control responses with BI-ACT* controllers.

4. Size of panel boards reduced—costs lowered, by TRANSET* indicating and recording receivers.

5. More accurate cost accounting on wet finishing operations with Taylor FLOW METERS.

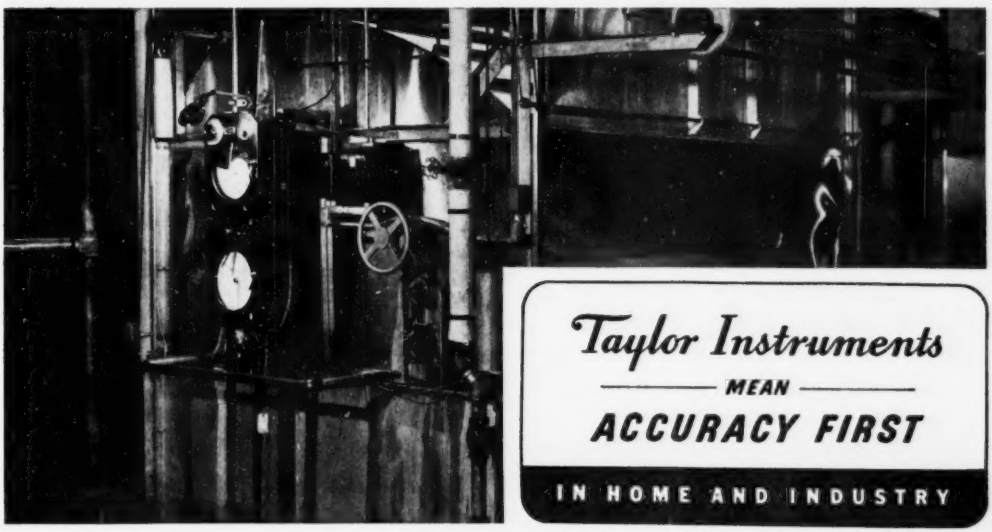
6. More uniform shade matching—steam saved, operator responsibility reduced by COORDINATED PANELS FOR PACKAGE DYEING.

7. New answer to Squeeze Roll Pressure—know pressure on both ends of your size box squeeze roll with Taylor's new SQUEEZE ROLL PRESSURE CONTROL. Measures and controls actual pounds of pressure applied directly to the roll—unaffected by friction or leaking air.

Taylor Instruments can protect quality, cut operating costs, in most every phase of textile manufacturing. Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada.

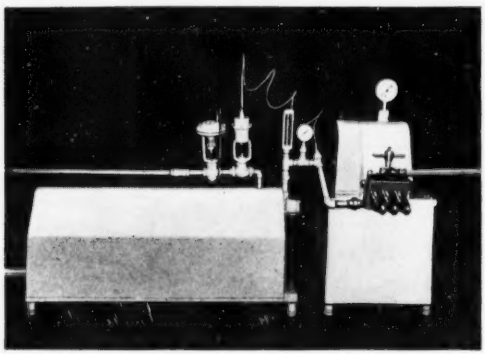
Instruments for indicating, recording and controlling temperature, pressure, flow, liquid level, speed, density, load and humidity.

*Trade-Mark



Taylor Instruments
MEAN
ACCURACY FIRST
IN HOME AND INDUSTRY

Continuous size preparation and increased loom efficiency with the new



Scott & Williams Hydropulse

What the Hydropulse is: like many important developments, this unit is basically quite simple in design. It consists of a heat exchanger for heating cold starch mixes to the swelling point, and a high pressure homogenizer to convert the mixes into finished size of controlled viscosity.

What it can do for YOU: the Hydropulse will give you *continuous size preparation.* Costly batch methods have been completely eliminated. You get fresh size at the push of a button.

In addition to increased weaving efficiency you get: savings on starch costs, savings on steam costs and better process control. You can be sure of all these benefits because the Hydropulse is specifically designed for textile use by a company that has specialized in textile machinery for over 80 years... Scott & Williams, Inc.

For more information: write today to one of the addresses below.

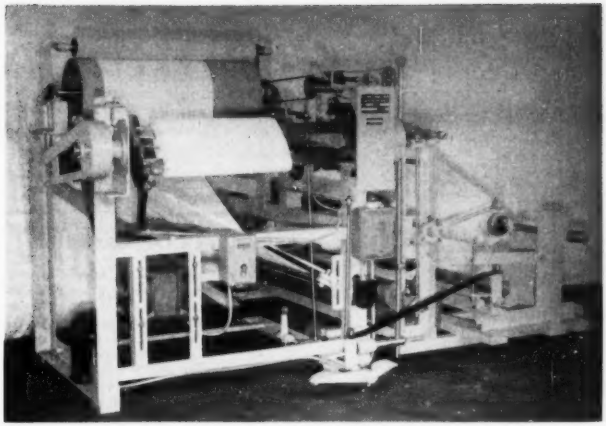
Manufactured by

PIONEER DIVISION, SCOTT & WILLIAMS, INC.
Empire State Building, New York 1, N. Y.

Southern Sales and Service:

SOUTHERN SIZING COMPANY
EAST POINT, GEORGIA

You are cordially invited to visit Booth No. 359 at the 17th Southern Textile Exposition, Textile Hall, Greenwich, S. C., October 6-11. The Scott & Williams Hydropulse will be exhibited.



Windle cloth doubling, winding, and measuring machine.

nouncement states, with a resultant weakening of the finished garment.

When a fabric is treated with Velubra-H, needles are reported to by-pass yarns rather than cut through them. It makes a treated sewn fabric equally as strong as a treated unsewn fabric, reduces friction, and prevents static. In addition, it gives a desirable soft "hand" and materially improves fabric cutting characteristics.

Velubra-H is described as a non-ionic polyester of a completely saturated high molecular weight aliphatic acid. It is a water-dispersible, light tan cream that will not discolor or turn rancid. It is non-toxic, colorless, odorless and completely harmless to the fabric. It is said to be especially beneficial to materials woven of blended fibers, but is recommended for all cotton, wool, and synthetic goods. Available in 50 gallon open-head, returnable drums.

Amalgamated Chemical Corp., Ontario and Rorer Streets, Philadelphia 34, Pa.

For additional data, request item I-503, using business reply card on page 286.

Automatic Grinder for Shear Blades, etc.

An automatic medium duty knife grinder is said to be particularly adapted to the fast, accurate care of many types of knives including rag cutter knives and light shear blades. Designated the "NL," it is equipped so that table speeds are variable. Table reversals are smooth and shock-free, it is claimed. Six standard sizes available to handle knives from 60" up to 110" in length.

Samuel C. Rogers & Co., 183-205 Dutton Ave., Buffalo, N. Y. (I-245).

Cloth Doubling, Winding and Measuring Machine

A cloth doubling, winding and measuring machine recently developed for cotton, rayon and silk cloth features electrically operated yardage stop, friction clutch drive, automatic brakes, new safety devices, and welded steel construction.

At the end of the number of yards at which the measuring counter has been set, the friction clutch drive automatically disengages and brakes come into action which stop the rotation of the winding head and cloth supply roll, and cloth between remains in an even tension while it is being cut. Yardage stop can be switched off and brakes manually controlled by means of the foot shifter stopping the travel of the cloth at the desired number of yards or when seam appears in sight. In either case three brakes stop the machine instantly, the manufacturer claims, providing perfect control of the cloth.

While the board frame is unlocked to doff the finished roll of cloth, it is automatically placed in a fixed position and, according to reports, cannot become out of control while roll is being disposed of and cloth board frame is locked into place again.

A safety device on the winding

SEE C-D-F FOR FIBRE

ROVING CANS — STRONG AND SMOOTH!

For materials handling equipment specify C-D-F Vulcanized Fibre receptacles. Nothing beats fibre for economy and long life.

Material is tough and mar resistant. Trays, boxes, baskets, cans, barrels. C-D-F builds them all from light, sturdy fibre. You move materials, not useless weight.

LOOM PARTS—ALL NON-METALLIC!

Vulcanized Fibre bushings, washers, binder pins. Fibre cloth roll bearing blocks. Special parts that C-D-F accurately machines. Order by original part number and maker, or send us the old part.

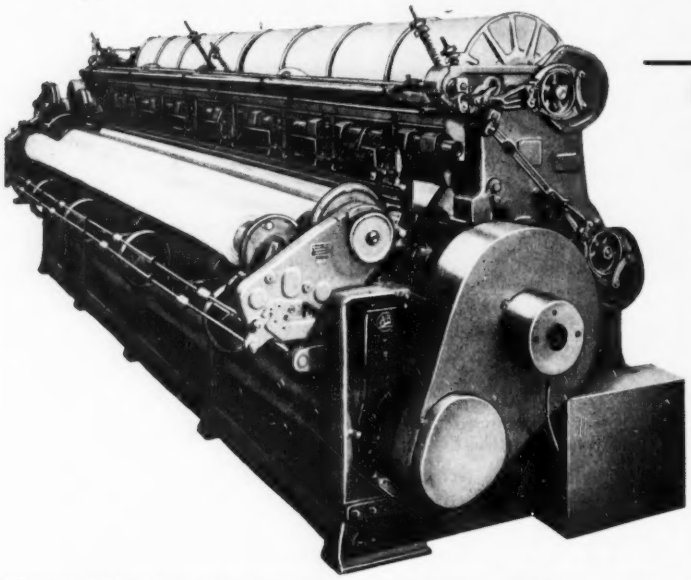
C-D-F's new Southern warehouse is located at Spartanburg, S.C. Celoron gear stock always immediately available. Phone: Spartanburg 3-6397.

WRITE NOW! Write Textile Section, C-D-F, for catalogs showing Vulcanized Fibre receptacles, Dilecto laminated plastic materials, Celoron silent gear stock . . . all made by C-D-F to save you money. *Free 64-page booklet on machining plastics will be included!*

CDF Continental-Diamond Fibre Company

NEWARK, 11, DELAWARE

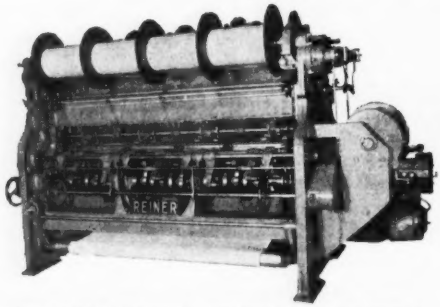
REINER...for superior quality.



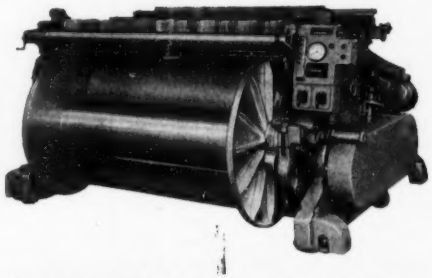
REINER TRICOT MACHINE

Quality control, ease, reliability and economy of operation are essentials of successful manufacture. The new Reiner Tricot Machine, in mill operation everywhere, easily meets all these requirements. Its automatic devices improve fabric quality and eliminate stop and shade marks. They assure a steady flow of flawless tricot cloth at top speed. Machine operation and care are made easier and yarn control more positive. Truly, here is *tricot at its best!*

Quality knitting is only possible with quality machines. For many years and in many mills Reiner equipment has proven to be of the superior quality class. Convince yourselves by inspecting this latest Reiner machine, in action, at the Reiner plants in Weehawken, N. J.



REINER SIMPLEX MACHINE — Experienced knitters are aware of the ever-widening acceptance and popularity of goods made of Simplex cloth, such as gloves, swim suits, sport shirts, sport jackets, sport shoes, bed jackets, hand bags, slip covers, nightgowns, dinner jackets, dresses, riding vests, etc.



REINER HD WARPER — The Model HD (Heavy Duty) Beamer—Flange diameters from 26" to 36"—Length of beam to customers' specifications—Suitable for dye beams—Spindle drive—Speed range from 100 to 750 yards per minute through rheostat control. Independent adjustment for inching and starting speed, provision for foot-operated inching switch—Rheostat geared to presser roller to maintain pre-set constant yarn speed—Traverse motion—Electric beam doffing device and many other features.

FOUNDED IN 1903

ROBERT REINER INC.

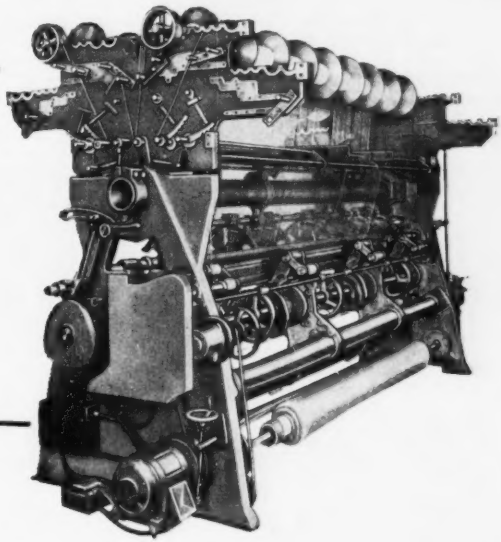
550-564 GREGORY AVENUE
WEEHAWKEN, NEW JERSEY

versatility and performance!!!

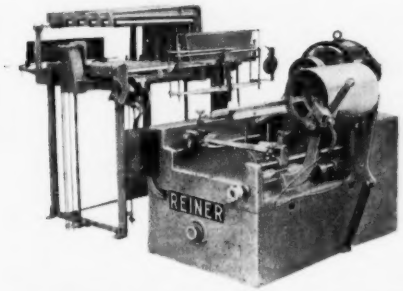
****REINER RASCHEL MACHINE**

This unit is the latest model in an unbroken line of Reiner Raschel Machines for three decades. It is sturdily built to withstand fastest speeds. It is offered with one or two needle bars, and up to 8 guide bars.

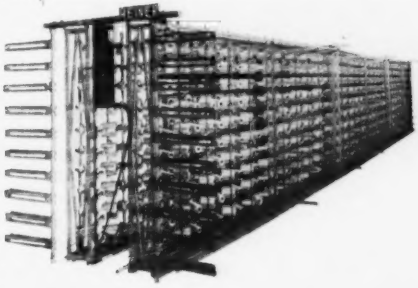
Optional features include: Chopper Plate — Automat — Plush Points — Crepe Attachment — Stitch Comb — Rubber Beam Feeding Device — and others. Gauges 24 — 36 — 40 (English) or to your specifications. Knitting width 100" and 112".



THE REINER LINE — *Tricot Machines (2- and 3-bar, 84" and 168")—Simplex (Double Knit) Machines—Raschel Machines—Magazine Creels—Single Type Creels—Truck Creels—66 Gauge (4 Section) Full-Fashioned Hosiery Machines—Automatic Schiffli Embroidery Machines (10 and 15 yards)—Bobbin Winding Machines (for Stitching or Quilting)—Ready Spare Part Service for all Reiner Machines.*



****REINER SW-24 SECTIONAL WARPER**— These SW-24 machines are team mates of Reiner Creels and Warp Knit Machines—preferred by many mills. Spools up to 24" in length—flange diameter up to 21". Adaptable to multiple spools for narrow fabrics. Reiner offers sectional warpers up to 84"—all readily usable with any make warp knit machines.



****REINER MAGAZINE CREEL** — These creels are favorites in many mills. They feature various stop motions, tension devices, balloon control. Suitable for all types of yarns and packages, including nylon pirns. Other Reiner Creels are Truck, Single Type, Heavy Duty, or to your specifications. These creels are also readily usable with any make warper or warp knit machines.

***Will be demonstrated at the Greenville Show.*

10 MINUTES FROM TIMES SQUARE. Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

head prevents the machine from accidently starting should the operator touch the foot pedal or engaging connections while the finished roll of cloth is being doffed or board frame or other winding fixtures are unlocked. Cloth board frame, winding fixtures, and rotating parts are guarded at vital points.

J. E. Windle Machine Works, North Grafton, Mass.

For additional data, request item I-306, using business reply card on page 286.

Running Time Recorder

A simplified running time recorder, designated the "Multicorder," connected to the start and stop buttons of a machine or to the forward and reverse motor starter coils provides a written record of all stops, starts, reversals, and the time duration of each, the manufacturer states. Recommended for dyeing, drying, dipping, washing, etc. processes that require time studies. 8" chart is driven by synchronous motor. Pen is actuated from center by a left and a right solenoid for forward or reverse operation.

Walworth Controls Co., 131 Main St., Rocky Hill, Conn. (I-230).

Rubber Lining Prevents Failure in Pipe Bends

New developments in lining and covering pipe, fittings, and process equipment with rubber now permit applications which have reduced maintenance costs, protected equipment investment, conserved space, and prolonged the useful life of pipeline and process equipment, the manufacturer claims. Through recent development of an improved application process it is now possible to apply lining on three 90-degree bends in a single length of pipe as small as 4 inches in diameter. Interior surface around bends is said to be smooth. Bond between rubber and material has high strength and is resistant to ageing.

La Favorite Rubber Mfg. Co., 264 Wagaraw Road, Paterson, N. J. (I-231).

Flat Bed Machines for Sewing Knitwear

A new, improved single-needle machine for miscellaneous operations on heavy knitwear is designated Style 51300 BP. It is equipped with trimming mechanism. Produces Seam Type SSa-1. Stitch range, 8 to 16 per inch. Style 51400 BD is a two-needle machine for hemming and simultaneously inserting elastic in knitted undergarments. Can be equipped with close coupled puller. Produces seam Type EFg-2; stitch range 5 to 12 per inch. Other features: automatic lubrication, anti-friction bearings in feed lift, looper avoid, and feed drive, permitting greater speed, smoother operation, less wear.

Union Special Machine Co., Chicago, Ill. (I-232).

Duct Booster Fan

A heavy duty belt driven fan, with motor outside of air stream, for use in large range hood exhausters or in ventilating or heating systems, is recommended for air movement up to 350 F. Unit is quiet; will operate against moderate static pressure up to 2 inches. Completely ball bearing. Sizes from 16" to 36"; air deliveries

NON-FLUID OIL
TRADE MARK REGISTERED

Oil Progress Week, Oct. 12-18

Since 1947, the Oil Industry has annually set aside a week to call to the public's attention the story of oil and the amazing progress being unfolded by the industry.

Since 1896, for 56 years NON-FLUID OIL, with its exclusive drip-less, waste-less properties has been setting the pace in that and other phases of Oil Progress. Today, NON-FLUID OIL is still the progressive pioneer in textile lubrication. Seven out of ten textile mills use NON-FLUID OIL grades that are specifically recommended for their equipment in its present condition.

Write for instructive bulletin and free testing sample of NON-FLUID OIL.

New York & New Jersey Lubricant Co.
292 Madison Ave., New York 17, N. Y.
Works: Newark, N. J.

SOUTHERN DISTRICT MANAGER: Lewis W. Thomason, Jr., Charlotte, N. C.
WAREHOUSES: Atlanta, Ga. — Birmingham, Ala. — Charlotte, N. C. — Chicago, Ill. — Columbus, Ga. — Detroit, Mich. — Greensboro, N. C. — Greenville, S. C. — Providence, R. I. — St. Louis, Mo.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

from 2700 to 23,000 cu ft per minute.

Chelsea Fan & Blower Co., Inc., 639 South Ave., Plainfield, N. J. (I-233).

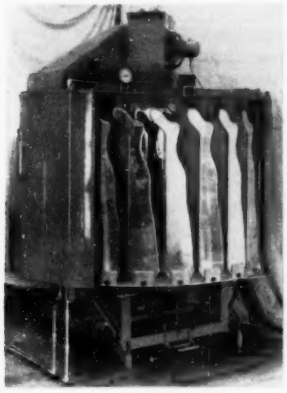
Vegetable Oleic Acid

Emersol 240 Vegetable Elaine is an oleic acid of all-vegetable origin, the manufacturer reports. Superior oxidation stability and an unusual bland odor are claimed. Specifications: iodine value, 84-90; acid value, 191-195; saponification value, 192-196; titer, 15-20 C; color (Lovibond, 5¼" cell), 15Y/3R max.

Emery Industries, Inc., Dept. 5, Carew Tower, Cincinnati, Ohio (I-234).

Compact Nylon Hosiery Finishing Machine

Compactness and simplicity are the outstanding features claimed for a nylon hosiery finishing machine recently introduced in Great Britian. It occupies an area 7' x 7' 6". Twenty-four forms are mounted on a circular rotating table (that can be completely changed in two minutes) which



is friction driven in a clockwise direction by a ¼ hp motor mounted beneath the cabinet. Operator controls drive by foot pedal.

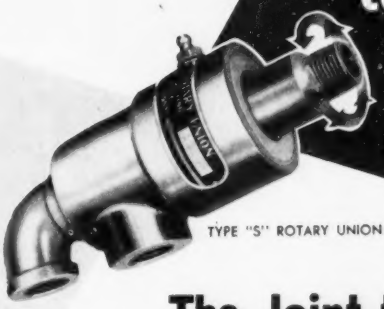
As the forms enter the drying cabinet on the left side of the machine, a mirror located on the other side from the operator enables adjustment of stocking seams to run along edge of forms. Hose then enter an atmosphere controlled at 140 F (or other predetermined temperature) and given a good matt luster finish.

Air is blown from above by a fan driven by a 1/6 hp motor. To provide extra heat to dry stocking tops, an extra steam pipe is placed adjacent

ROTARY UNION
(REG. TRADE MARK)

a revolving steam connection

PIPE SIZES 1/4" THROUGH 3"



TYPE "S" ROTARY UNION

The Joint that Floats

One reason why we can guarantee ROTARY UNIONS to give a perfect seal for at least a year, is because each ROTARY UNION *floats* on its own built-in flexible hose connection, thus taking stress and strain from moving and sealing parts. Many ROTARY UNIONS have been in service for three years or more without requiring tightening or adjusting service of any kind.

These flexible hose connections also do away with complicated piping and brackets and permit installation in 15 minutes or less.

If you haven't used ROTARY UNIONS, install a set on a slasher, dry can, embosser, or printing or coating machine and compare their economy with that of any stuffing box, packing joint, or other steam joint. Our own direct sales engineers are available for consultation. Call our nearest office or write Dept. 9T for our catalog.

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SOUTHERN TEXTILE EXPOSITION

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PERFECTING SERVICE COMPANY
332 Atando Avenue (Home Office and Factory) Charlotte, N.C.
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DOW CORNING ANTIFOAM A

DOW CORNING ANTIFOAM A EMULSION

the most versatile and effective DEFOAMERS

Dow Corning Antifoam A is a colorless, odorless, and translucent silicone defoamer that retains a honey-like consistency at temperatures ranging from —40° to over 200° C. It is practically inert physiologically and safe to use in food and drugs in concentrations up to 10 parts per million. Dow Corning Antifoam A can be applied as a dispersion in such solvents as cyclohexane, ethyl ether, gasoline, 2-ethyl hexanol, kerosene, methylene chloride, naphtha, pine oil, Stoddard solvent, tetrachloroethylene or toluene. It can also be applied as a dispersion in the foamer or in one of its ingredients; or as a pellet made with a dry ingredient of the foamer.

In the textile industry, Dow Corning Antifoam A is effective against a wide variety of foamers: sizing materials including resin-based warp sizes, dye baths, fabric printing inks, and finishing solutions including resin treatments such as urea-formaldehyde and melamine. One finisher for example, reports that only 1/10 of an ounce or 3 parts of Antifoam A per million are required to control foam in a 100 gallon tank of sizing solution.

Dow Corning Antifoam A Emulsion is a water dilutible emulsion containing 30% by weight of Antifoam A. It has the advantage of being more readily dispersible in a wide variety of aqueous foamers, but it contains emulsifying agents that cannot be used in foods or drugs. Dow Corning Antifoam A Emulsion is widely used, however, in the textile and process industries.

Here are some typical examples. Only 5 drops of this emulsion are required to kill foam in a 40 gallon tank of acetate sizing. In 50 gallons of a urea-formaldehyde-melamine finish for chintz, only 25 cc or 38 parts of Antifoam A Emulsion solids per million are required to control foaming.

save time and money in the textile industry. Foam wastes space in tanks and vats; slows production schedules; interferes with the uniform application of dyes, finishes and coatings. Production men in the textile industry have found that many of even the most violent foamers can be controlled by the addition of small quantities of Antifoam A or Antifoam A Emulsion.

quick! *Write for free sample and more information* on Dow Corning silicone defoamers. Ask for data sheet No. BL-21.

DOW CORNING SILICONES

DOW CORNING CORPORATION

Midland, Michigan

Atlanta • Chicago • Cleveland • Dallas • New York • Los Angeles • Washington, D. C. In Canada: Fiberglas Canada Ltd., Toronto • Great Britain: Midland Silicones Ltd., London

to the stockings around the interior of the cabinet.

Two operatives are required for the machine, which is said to consume 90 lb steam per hour at 30 psi.

Samuel Pegg and Son, Leicester, England. (I-254).

Differential Voltage Indicator

A new indicator, designed to measure differential voltage, as well as amperage, speed, pressure, and other quantities which can be converted to voltage, has been announced. Features a self-balancing circuit which possesses a high degree of stability and freedom from drift.

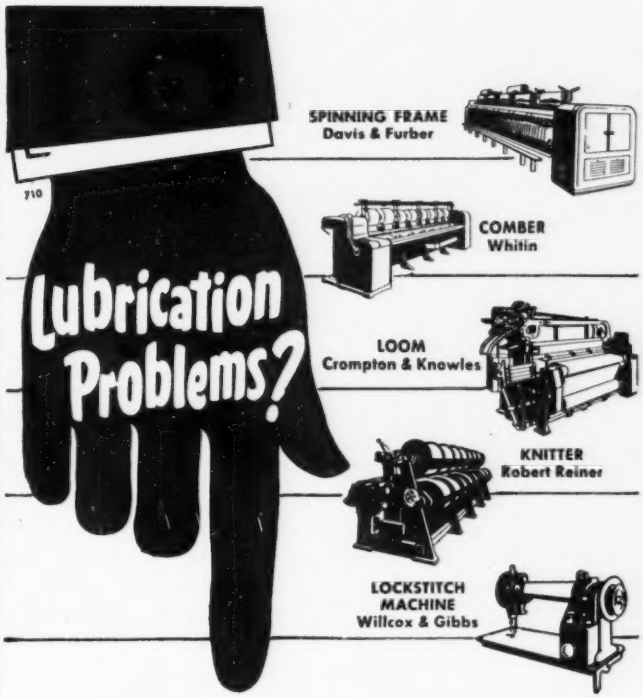
Capable of measuring a 0.001-30 volt differential of two input voltages ranging from 1-400 volts, providing they do not differ by more than 300:1. Instrument can be set to indicate full scale for voltages as small as 0.022 volts. Scale can be marked in volts, amps, fpm, etc. Used with standard accessories, such as a recorder, indicating instrument, or alarm relay, the differential voltage indicator will record deviations at a point remote from the installation, or sound an alarm when deviations occur.

General Electric Co., Schnectady 5, N. Y. (I-253).

Steam Generator with Cyclonic Combustion

Packaged steam generators now available will, according to the manufacturer, produce maximum heat transfer on any application with only 3 sq ft of heating surface per bhp. Known as "Cyclotherm" generators, the units operate in this manner: air enters the combustion chamber at a high velocity and mixing with the fuel is made to spiral in a revolving vortex along the entire length of the furnace. This controlled spiral is actually cyclonic in motion. The intensely luminous flame transfers heat to the fire tube both by radiation and convection, resulting in an unusually high rate of heat transfer.

There are no hot spots, the manufacturer claims. Generators meet all state requirements and are built in accordance with ASME and National Board standards; bear label of Underwriters' Laboratories. Full



not on these machines!

...they're all BIJUR equipped

Each maker of these machines had your best interest in mind when he built-in a Bijur lubricating system. Human carelessness and forgetfulness are eliminated by machines having built-in Bijur lubricating systems. These machines will never be shut down because they lack continous, proper lubrication. Make certain the machine you buy is furnished with a Bijur lubricating system.

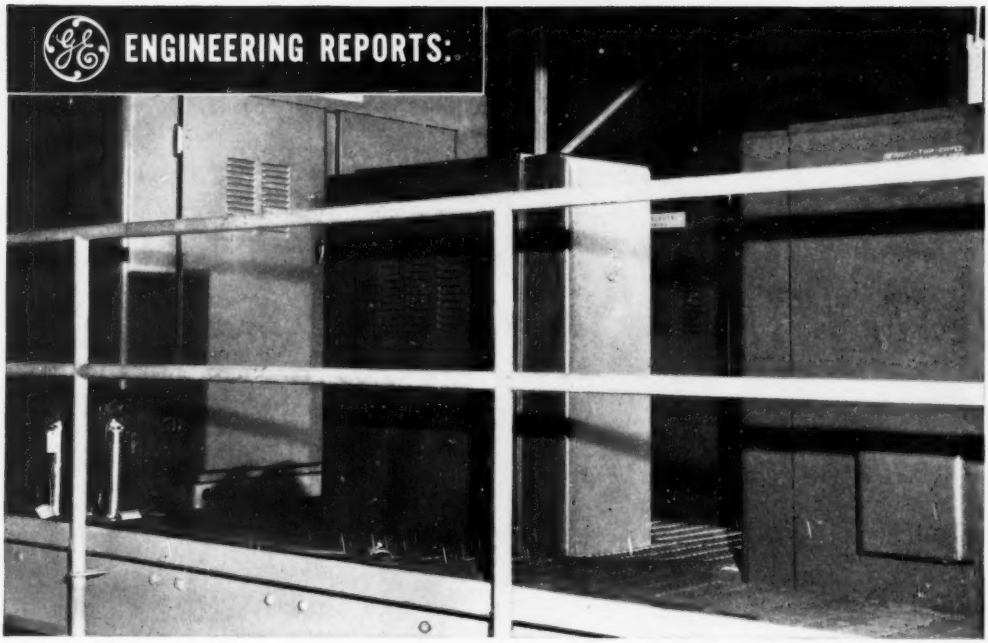
Write for Bulletin 6A

BIJUR

LUBRICATING CORPORATION

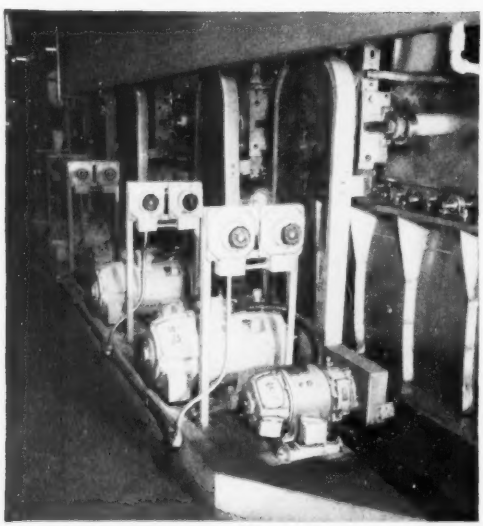
Rochelle Park • New Jersey

ENGINEERING REPORTS:

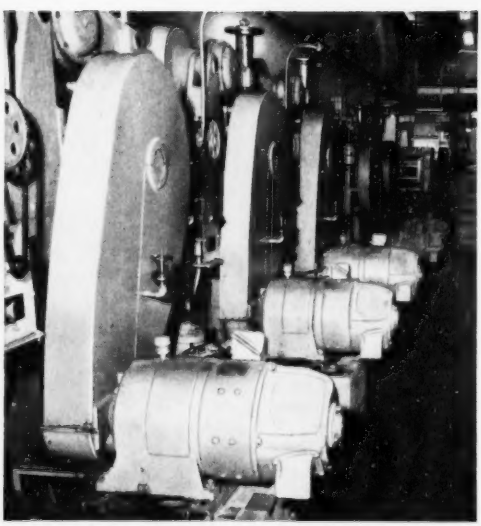


EASY-TO-INSTALL G-E Speed Variator power package can be located practically anywhere. At Delta Finishing Co., some are placed on a grid-floored balcony. Costly interwiring was eliminated—running in conduits was all that was needed.

New G-E packaged range drives



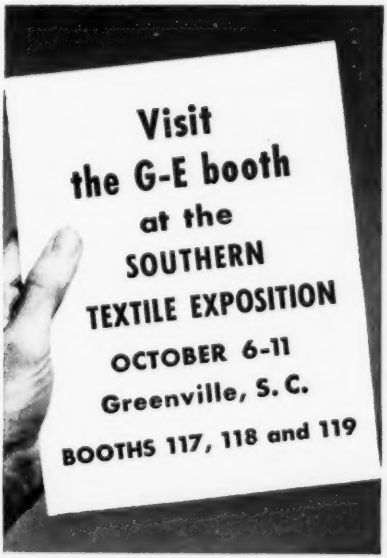
PRECISE SPEED ADJUSTMENT is provided in this scouring washer by individual G-E motor field rheostats.



CAREFUL CO-ORDINATION of four 10-hp G-E splashproof gear-motors keeps four-compartment washer in step.

COMPACT G-E Speed Variator power "packages" save floor space. The four units shown here contain all equipment necessary for powering several ranges at Delta Finishing. Note how compact design of units allows grouping in limited area.

make plant layout more flexible



Compact Packaged Power units at Delta Finishing Co. save space, cut installation costs

At the Delta Finishing Co. plant in Wallace, S. C. (division of J. P. Stevens & Co., Inc.) the wide variety of range layouts needed makes General Electric packaged drives especially valuable.

A de-sizer, a ten-beam boil-off, a scouring washer, a loop dryer, and a mercerizer washer, among others, are accurately co-ordinated by these adaptable multi-motor systems. Each drive frees important floor space—power units combine motor-generator set, exciter and control panel in single, compact "packages." No special foundation is needed. Units can be located anywhere.

Costs are lowered, too. Power units are mass-produced from standardized parts. Installation or relocation is simple—just set up the power "package," run in the conduit. Range layouts can be changed easily and quickly.

To learn more about range drives that give all the advantages of d-c speed control, *plus* the advantages of drive "packaging," call in your G-E textile-mill representative. General Electric Co., Schenectady, N.Y. 654-24

Engineered Electrical Systems for Textile Mills

GENERAL ELECTRIC

you don't see these machines you'll have missed the show!

Your primary object in visiting the Southern Textile Exposition at Greenville, S. C. is to see the latest developments in textile machinery and equipment and to be shown how they can increase the efficiency of your mill and improve the quality of your product. Be sure to visit Section 108A! You'll see there, in operation, a group of highly efficient, reasonably priced machines that will pay you quick dividends.

See them in operation at the

SOUTHERN TEXTILE EXPOSITION

GREENVILLE, S. C.
OCTOBER 6-11

SECTION 108A

- **"Robot" Automatic Reed and Heddle Polishing Machine**
- **Paper Design Dobby and Card Punching Machine**
- **Universal Shuttle Truing Machine**
- **"Slide-tex" Heddles and Drop Wires with Rectangular Eyes**
- **"Slide-tex" All-metal Harness Frames**
- **"Tel" Differential Indicator**

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CENTRAL RECORDING INSTALLATIONS
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HEDDLES and DROP WIRES WITH RECTANGULAR EYES
HARNESS FRAMES

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HORGEN-ZURICH
PAPER DESIGN DOBBIES AND CARD PUNCHING MACHINES
SHUTTLE TRUING MACHINES

power operation from a cold start in 15 to 20 minutes. Savings up to 50% on maintenance; also large savings on fuel. Designed for oil or gas operation from 18 through 500 hp, 15 to 200 psi operating pressure.

Cyclotherm Division, United States Radiator Corp., Oswego, N.Y. (I-255).

Special Roller Chain Has Oil-Impregnated Bushings

To meet the need for a chain drive which would operate efficiently where conventional lubrication methods are either not possible or desirable, a special roller chain incorporating oil-impregnated sintered metal bushings has been manufactured. Because of the indication of a marked increase in service life on applications where normal lubrication is not available, it is expected that this development will open up new fields of use for roller chains in areas previously restricted to other methods of power transmission.

Whitney Chain Co., Hartford, Conn. (I-207).

Speed Control for ¾ hp Motors

A ¾ hp "Variac" motor speed control is designed for light production such as (1) where several lathe operations are done on the same piece at different speeds; (2) where an operation must be gradually started or stopped; (3) in facing, the speed can be changed as the diameter of the cut changes; (4) operations requiring rapidly repeated starts, stops, and reversals, etc. Instant starting and reversing are provided, the manufacturer states, together with strong dynamic braking; production time is saved.

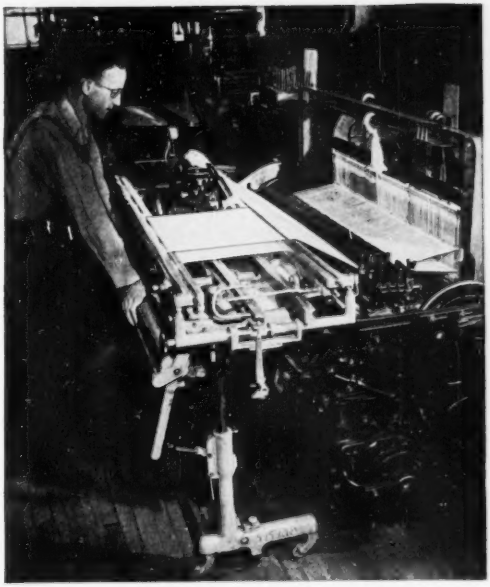
General Radio Co., 275 Massachusetts Ave., Cambridge 39, Mass. (I-223).

Standardized Modular Motor Control Centers

Advantages claimed for the "Concentrol" motor control centers now available include: greater safety, easier maintenance, space saving, production continuity, all motors are controlled from one central point. Three types manufactured: Type A control center structure with unit

TITAN The fastest and most economical

AUTOMATIC WARP TYING MACHINE



Southern cotton mill reports tying 103,984 ends in 8 hours. Another mill reports tying over 80,000 ends in 8 hours of heavy sley cotton and spun rayon.

All straight, perfect weaving warps.
No double ends.
No reed disturbance or harness setting.
Ties more ends per minute at lower costs.
Ties warps with or without leases and unleased to leased warps or vice versa.
Ties nylon, rayon, wool, worsted, cotton, silk, glass or combination yarns.
Is simply designed for ease of operation.
Ties portable and/or stationary.

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Booth No. 503 at the 17th Southern Textile Exposition, Greenville, S. C. October 6 thru 11, 1952.

EDDA INTERNATIONAL CORP.
468 FOURTH AVE., NEW YORK 16, N. Y. CALHOUN TOWERS, GREENVILLE, S. C.
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Southern Representative: Ira L. Griffin & Son, 1429 Bryant St., Charlotte 1, N.C.

SEE OUR OTHER ADVERTISEMENT ON PAGE 270

17th
SOUTHERN TEXTILE EXPOSITION

OCTOBER 6-11, 1952

TEXTILE HALL

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An opportunity to become acquainted with the latest developments in machinery, equipment, accessories, supplies, and techniques relating to the textile industry.

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Monday through Friday . . . 9 A. M. to 7 P. M.
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For room reservations, please write Textile Hall Corporation, 322 West Washington Street, Greenville, S. C.

"AN INSTITUTION OF THE TEXTILE INDUSTRY SINCE 1915"

starters; Type B control center supplied as in Type A, plus motors and control terminal blocks at unit starters; Type C control center supplied as in Type B plus master terminal blocks in each structure.

Continental Electric Equipment Co., Box 1055, Cincinnati 1, Ohio (I-224).

Multi-Stage Centrifugal Pumps for Medium Pressure Applications

Redesigned, horizontal, multi-stage centrifugal pumps for medium pressure applications give higher efficiency and better operation, the manufacturer claims. Called the Class CNTA, these pumps are intended for boiler feed and general industrial services to 800 lb. Built in 1½, 2 2½, and 3-in. sizes, units are available with 4, 6 or 8 stages.

Ingersoll-Rand Co., 11 Broadway, New York 4, N. Y. (I-225).

Fitting Joins Pipe or Tube without Threading or Welding

Chief advantage claimed for a new stainless steel fitting known as "Quikupl" is that it can be joined to tube or pipe without threading, flaring, sweat soldering, brazing, beading or welding. All that is necessary, the manufacturer states, is to cut the tube or pipe to length and deburr; then insert it in the fitting and complete the joint by tightening a small screw. Designed to reduce assembly costs, and to permit the use of less expensive light wall tubing, the new elbows, couplings, tees, reducers, and adapters provide substantial savings in time, labor, and material, reports indicate.

The Cooper Alloy Foundry Co., Hillside 5, N. J. (I-226).

Mercury Switch for Explosive Locations

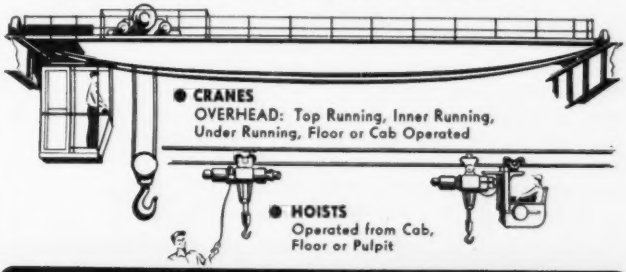
A new mercury switch is reported to provide positive safety in hazardous, explosive locations. Heart of the unit, the announcement states, is the hermetically sealed mercury switch mounted on a lever-operated armature. Switch is set in operation by a selector knob or pushbutton which inclines armature, thereby actuating switch. Any possibility of spark is eliminated, manufacturer claims. Designed for vertical panel mounting,

it's thriftier . . . THROUGH THE AIR

HERE'S THE THRIFTY WAY to handle materials — with only two stops from start to finish! Pick up the load at the door with this Shepard Niles Crane, then deposit it where you want it. There's no further handling, no floor space wasted. Instead, you make room for more production and storage.

IT'S NOT ONLY LESS COSTLY, it's faster and easier when you handle it through the air. But what crane will suit your plant best? The Shepard Niles representative can give you this answer, based on a careful study of your plant's needs. Send for Bulletins 175 and 176 today — ask to have a representative call.

Specialists in loads through-the-air since 1903.


● CRANES
OVERHEAD: Top Running, Inner Running, Under Running, Floor or Cab Operated
● HOISTS
Operated from Cab, Floor or Pulpit

SHEPARD NILES
CRANE AND HOIST CORPORATION

1912 SCHUYLER AVE., MONTOUR FALLS, N. Y.

LESTERSHIRE PRESENTS.....

1. Beveled aluminum bushing which gives rigid support to the head and eliminates screws.
2. Phenolite (laminated bakelite) or hard vulcanized fibre head.
3. Barrel of molded bakelite, separated to show central support.
4. Aluminum center tube, to which end bushing is locked.
5. Same as No. 2 above.
6. Note nylon bushing in drive slot which serves to prevent wear from metal-to-metal contact.

The new Lestershire "NB" Bobbin, made from aluminum, Phenolite (laminated bakelite) or hard vulcanized fibre, withstands tremendous crushing pressure on the barrel and outward pressure on the heads.

No screws are used to fasten these bobbins together. Beveled aluminum bushings, threaded to the metal central tube, and locked in place, hold the heads rigidly against yarn pressure. Elimination of the screws helps assure dynamic balance. The barrel, of molded bakelite, fits snugly at the center against the inner metal tube and around the end bushings—thus assuring great strength for the entire barrel and concentricity for the unit.

All parts are made to close tolerances and are interchangeable when worn parts are to be replaced, or when there is some change in bobbin use.

These are just a few of the revolutionary features of "NB" bobbins that will save you money and assure efficient, trouble-free operation.

At the Southern Textile Exposition see this revolutionary new bobbin—on the stage at Textile Hall, with McLeod Companies.

THE NEW "NB" BOBBIN*

FOR USE WITH SYNTHETICS

Designed by Lestershire in cooperation with leading mills for these specific purposes:

- **To give balance without "balancing".**
- **To take packages of all dimensions.**
- **To operate at higher spindle speeds.**
- **To lessen spindle and bolster wear.**
- **To reduce power consumption.**
- **To lower bobbin investment.**
- **To assure strength to withstand crushing pressures.**
- **To eliminate vibration.**

Write for sample bobbin and full facts about Lestershire "NB" Bobbins.

*Pat. No. 2048994—Further patents applied for.

LESTERSHIRE SPOOL & MFG. CO.

Specialists in the production of bobbins to meet individual requirements

140 Baldwin Street — Johnson City, N. Y.

DIVISION OF NATIONAL VULCANIZED FIBRE CO.

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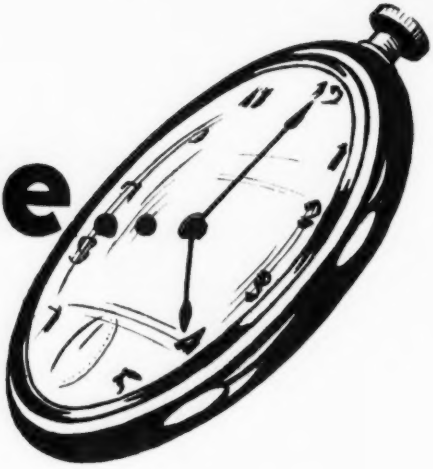
Odell Mill Supply Co.—Greensboro, N. C.
Greenville Textile Supply Co.—Greenville, S. C.

it's time...



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Especially convenient for those interested in textiles are Southern Airways' convenient daily flights to Greenville, S. C., site of the Greenville Textile Show to be held October 6-11. Plan now to fly Southern Airways to this important exposition . . . get the most time possible from the shortest time away from business.

For reservations and information, phone your local Southern Airways ticket office . . . or your travel agent

Southern AIRWAYS

CONNECTING SERVICE ANYWHERE

the switch is single pole, with either single or double throw action.

Tigerman Engineering Co., 4332 North Clark St., Chicago 26, Ill. (I-227).

Fork Truck Attachment Handles Different Size Drums

A completely automatic, mechanically operated, drum-handling attachment is capable of carrying different size drums two-at-a-time. No special hydraulic system components required; may be attached to truck by clamping it directly on forks.

The Yale & Towne Mfg. Co., Philadelphia Div., Philadelphia 15, Pa. (I-228).

Leveling Device Improved

Improvements have been made in the "Leveler," a device with which material can be moved through a plant having different floor levels or loaded onto trucks or boxcars without removing it from the original carrier. A centrifugal governor has been added which acts as an emergency brake, and top and bottom automatic stops have been made more positive, the manufacturer states. Loads up to 6,000 lb can be raised five feet in 50 seconds with the material handling device. Can be installed anywhere, inside or out, since no sub-surface preparation is necessary. Platform is 8' x 6' 6". Height 7' 10".

Service Caster & Truck Corp., Albion, Mich. (I-229).

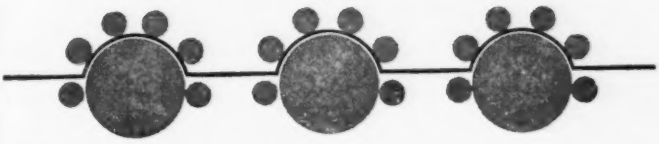
Electromagnetic Clutching and Braking Device

Wherever infinite and positive torque control is needed for clutching or braking, Clark "Dynamatic Drive" is recommended. These clutches and brakes employ fine iron particles mixed with dry lubricant, which when magnetized, creates a load transmitting bond between the two parts. The amount of tractive force exerted by the particles between the rotating parts can be infinitely varied from zero to complete engagement. This force is in direct ratio to the amount of electrical energy applied.

Advantages claimed: continuous operation with negligible wear; releases freely and positively; constant or variable torque output from con-

Booth Originators of STRIP-O-MATIC*

CARD CLOTHING NEWS AND VIEWS



STRIP-O-MATIC CARD CLOTHING

SAVES TIME, MONEY AND LABOR FOR CARDING ALL TEXTILE FIBERS

WOOL Nearly five years of continuous experience on several hundred installations have shown that STRIP-O-MATIC is ideal for the carding of wool. Users report up to 600% increase in the length of runs between stripping, great reduction in stripping waste, consequent savings in fiber and in the elimination of lost time for stripping.

SYNTHETICS Many mills on both cotton and wool systems running synthetics, have been using STRIP-O-MATIC successfully ever since its introduction. Results here have been even more spectacular than in the wool field. Users have enjoyed continuous runs on three shift operation up to 9 months without stripping and at the end of this period, found that there was absolutely no accumulation of stock on the face of the clothing and that no stock had been lost as stripping waste. Conventional clothing running the same fibers was stripped every one to three weeks depending on the staple length and the number of shifts of operation.

COTTON Cotton mills, too, are finding greater benefits in carding with the new STRIP-O-MATIC card clothing designed especially for cotton. Equipped with this clothing, carders increased their runs between stripping from three to more than ten times the best obtained with conventional clothing. A number of users who formerly stripped every two to four hours are finding that their time between stripping has increased up to 120 hours. (With continuous stripping, runs to 5 weeks are possible).

BLENDS STRIP-O-MATIC card clothing is especially adapted to blends of cotton, wool and synthetics, as in addition to carding better with less down time, STRIP-O-MATIC handles the fibers as they come, maintaining the exact proportion that you plan for the yarn, not removing one fiber selectively as is occasionally done with conventional clothing.

INSTALLATION SERVICE FOR COTTON CARDS Now for the first time, the Benjamin Booth Company announces a brand new service. A full time Booth specialist in the application of card clothing will install STRIP-O-MATIC in your plant, on your cards. He remains with you through the first operating runs, sees that you are getting the best from STRIP-O-MATIC, shows you how to test and check it frequently. This service, available now in North and South Carolina, will soon be available in other areas throughout the country.

Consult Booth today and learn how this service can help you achieve better carding for less money.

Southern Textile Exposition Exhibit No. 114

E. A. Snape Jr.

Established 1892

BENJAMIN BOOTH COMPANY, Allegheny Ave. & Janney St., Phila. 34, Pa. Booth

stant or variable speed input; current excitation accurately and instantaneously controls modulation, engagement and slip speed; simply adaptable to remote and automatic control; torsionals and peak vibrations can be absorbed; negligible amount of control current required; smooth engagement, no chatter or grab; operates as clutch, brake, or in combination in either direction.

The Clark Manufacturing Co., 1830 East 38th St., Cleveland 14, Ohio (I-243).

Lubricant for Industrial Truck Engines

Shell Rimula Oil features a combination of additives that is said to substantially extend the serviceable life of industrial and materials handling trucks, gasoline engines operating in door-to-door, intermittent type service, and some industrial automotive type diesel engines. According to the manufacturer, engine wear from corrosion and fouling of the oil is reduced, with consequent reduction of oil consumption and frequency of overhauls.

Shell Oil Co., 50 W. 50th St., New York, N. Y. (I-219).

High Pressure Chemical Injector Pump

A pump weighing only 62 lb will inject a liquid chemical into another liquid against 20,000 lb pressure, the manufacturer claims. Feed pressures on the high pressure chemical injector pump, Model MSM 5001, are reported to be easily adjusted from 5 to 50 lb to give desired output pressures of 100 up to 20,000 lb. Volume of liquid discharge can be accurately set to deliver ½ pint to 360 gal per 24-hr period.

Supplied with ¼" or ½" stellite pistons and valves when used for sustained high pressures. For lower pressures, 1" stainless steel pistons and valves are used. Mechanical parts operate in oil bath, sealed against dust and atmospheric influences. Suction equipped with combination sight feed strainer and cut-off; discharge chamber has bleed-off for easy priming and sample catching.

Texsteam Corp., 320 Hughes St., Houston 11, Texas (I-220).

New Gearmotor Line

A new line of gearmotors, comprising motor and speed reducer compactly mounted in a single housing, and with speed ratios ranging from 2.5:1 to 97:1, includes planetary, offset, and right-angle wormwheel types. Motors are available in ratings from ½ to 75 hp, in a-c squirrel-cage and wound-rotor, d-c shunt, series, and compound types. Open-dripproof, totally-enclosed non-ventilated and fan-cooled frame constructions are manufactured. Units can be adapted for horizontal, sidewall, ceiling or vertical mounting.

Star-Kimble Motor Division of Miehle Printing Press and Manufacturing Co., 200 Bloomfield Ave., Bloomfield, N. J. (I-217).

Brazing Alloy for Copper, Brass, and Bronze

Extreme fluidity and good wetting properties enable a new copper-phosphorous-silver brazing alloy to instantly penetrate tight fitting joints of copper, brass, and bronze to form strong ductile bonds, the manufacturer claims. Known as "Phos-Silver,"

Visit
our booth
No. 514
at the Southern
Textile
Exposition

GREENVILLE, S. C., OCTOBER 6-11, 1952

THE PURE OIL COMPANY PURE

it can be used with any of the common brazing methods and is said to be ideally suited for applications where brazing temperatures are critical. Brazing temperature, 1225 to 1275 F. No flux needed in copper-to-copper brazing.

Westinghouse Electric Corp., Box 2099, Pittsburgh 30, Pa. (I-218).

New Books

Woolen and Worsted Manufacturing in the Southern Piedmont, by James A. Morris, associate professor of economics at the University of South Carolina. In this 197-page, cloth-bound book, Dr. Morris analyzes the woolen and worsted industry, with particular reference to its southern segment. In particular, analysis of the status of the industry in the Piedmont belt, factors leading to expansion in this area, and the effects of the development of wool manufacturing are considered. The volume is a summary of the personal investigations of the author in both New England and the Southeast. It also refers to published material on the subject. Special subjects treated include the problems of marketing, and transportation, climate and building costs, community resources, and labor factors. University of South Carolina Press, Columbia 1, S. C. Price, $5.00.

A handy reference for fabric designers, manufacturers, technologists, buyers, sellers, teachers, students, and others interested in woven fabrics is **101 Fabrics,** by J. J. Pizzuto of the Fashion Institute of Technology and P. L. D'Alessandro of Deering, Milliken & Co., Inc. A study of various types of woven fabrics has been accomplished by including in the book a swatch of each fabric, a complete analysis of each fabric, and a dictionary of textile terms. It is reported that all information given for each sample was obtained from standard textile laboratory tests made on finished fabrics. Cotton, linen, nylon, acetate, cupra, viscose, mixtures, silk, woolen, worsted, and woolen and worsted fabrics are included. Textile Press, 140 Cedar St., New York, N. Y. $15.00.

Textile Printing Materials, Methods, and Formulae, by Fred F. Jacobs of Ciba Co., Inc., is a "how-to-do" book for the textile printer and colorist, chemist and engineer. Available dyestuffs and chemicals are surveyed along with the methods most suitable for their application. The book shows how to evaluate dyestuffs and thickeners on the basis of the textile materials to which they will be ap-

HOW
America out-produces the world
Mass production is the keynote of this nationally known thread manufacturer. Here, a Logan Pusher Bar Lift automatically receives a steady stream of cartons from sealer and elevates to Gravity line leading to storage or shipment.

American industry—puts flow into production, at every possible operation . . . . . .

"Keep it moving" is one of the first rules for efficient production. Frequent stops and starts mean waste motion, waste effort and time.

One of the principal factors in keeping things on the move, is correctly engineered conveyors. Logan equipment for instance, links up various textile mill processes, delivers material, without manual effort to each successive operation, "puts flow into production" in countless American mills.

Remember too, you get that "something extra" in engineering and design when you specify Logan Conveyors. Write for nearest field engineer to call.

Logan Conveyors

LOGAN CO., 206 CABEL ST., LOUISVILLE, KY.

Laurel
Textile Specialties
cut your processing costs
Laurel Scours and Penetrants
Laurel Brand Soaps—all fibers
Laurel Hydrosol—wool, cotton, mixtures
Laurezol—cotton
Laureltex Transfer Removers—all fibers
Laureltex #340
Laurel Transfer Solvent #622C
Laurel Synthetic Detergents and Penetrants
Laurel Supergel RS—all fibers
Laurel Boil-off Compounds—rayon, nylon, mixtures
Laurel Triconate—rayon, nylon, mixtures
Laurel Oils—Wool, Rayon—Sulphonated, Scouring, Fulling, Finishing, Sanforizing, Stainless Knitting Machine
If you would like to receive data sheets on Laurel developments as they are released, simply address us on your letterhead, Division "I"
Laurel Textile Finishing Agents
Laurel Textile Oil—cotton, rayon
Lauramine—cotton, synthetics
Olamine (Cation Active)—cotton, synthetics
Yarn Conditioners—cotton and mixed yarns
Hydrocop & 3B Softener
Emulsion C-4R—lubricant
Ruxite NF—conditioner and softener
Laurel Hosiery Finishes—all fibers
Permanent Resin Finishes—all fibers
Flame Retardant #527C—cotton and synthetics
Water Repellent Compounds—all fibers
Weighters and Conditioners—all fibers
Dullers
LAUREL SOAP MANUFACTURING CO., INC.
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ESTABLISHED 1909
Textile Soaps, Oils, Finishes
2629 E. Tioga Street
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NEW Equipment AND MATERIALS

plied and how to choose processes and formulate print pastes to meet the end-use requirements of the fabrics. Instructions are given for the pretreatment of various cloths before printing, the preparation of chemicals, including thickener and paste formulation, and for carrying out the printing and finishing operations. Quantities in formulas are given for both laboratory and plant scale use. Special sections are devoted to identification of fibers and to determination of dyestuffs on the fabric. Chartwell House, Inc., 280 Madison Ave., New York 16, N. Y. Price, $5.00.

The story of E. I. du Pont de Nemours & Co., Inc., has been published in commemoration of the 150th anniversary of the founding of the company. Titled **DuPont—The Autobiography of the American Enterprise,** it traces the company's role in the growth and development of the nation. Pictures and text sketch the broad United States social and economic patterns of the last century and a half, underscoring the company's advance to satisfy the country's expanding needs. Distributed by Charles Scribner's Sons, New York, N. Y., primarily to employees and stockholders. $5.00.

An Acknowledgement

Textile Research Institute wishes to acknowledge the valuable assistance provided by Botany Mills, Inc., Deering Milliken Research Trust, and W. J. Dickey & Sons, Inc., in the sponsorship of the Wool Research Project described in the article entitled "Instruments Speed Wool Research" appearing on pages 104 and 105 of the June issue of TEXTILE INDUSTRIES. The names of these sponsors were inadvertently omitted from the listing in this article.

The complete list of American wool manufacturing organizations who have participated in the sponsorship and detailed planning of the work of the Wool Research Project of Textile Research Institute should read as follows: Appleton Woolen Mills; Artloom Corporation; Bachmann Uxbridge Worsted Corp.; Sidney Blumenthal & Co., Inc.; Botany Mills Inc.; Deering Milliken Research Trust; W. J. Dickey & Sons, Inc.; Forstmann Woolen Company; F. C. Huyck and Sons; A. & M. Karagheusian, Inc.; C. H. Masland & Sons; Mohawk Carpet Mills, Inc.; Monsanto Chemical Co.; Scholler Brothers, Inc.; Alexander Smith, Inc.; M. T. Stevens & Sons Co.; Talbot Mills, Inc.; and Wyandotte Worsted Co.

Textile Industries

Volume 116 Number 9
SEPTEMBER, 1952

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Published Monthly at 115 E. Gordon
Dalton, Ga.

by W. R. C. SMITH PUB. CO.

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Editorial and Executive Offices
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ANNUAL SUBSCRIPTION
U. S., CANADA, PAN-AMERICA—$2.00
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Fielden INSTRUMENTS AND CONTROLS

FIELDEN MOISTURE CONTROLS FOR SLASHERS PREVENT SET MARKS AND EXCESSIVE LOOM SHEDDING

Excessive moisture in sized warps makes the yarn more ductile during weaving. Increased ductility robs warp ends of their ability to recover from elongation induced by strain caused when the harness is raised during loom stops. Set marks are the inevitable result.

Overdrying, on the other hand, leaves the size and surface fibres brittle. More force is required at the split rods to separate ends. Loss of overbaked size coating and surface fibres results. Further shedding of size and fibres occurs on contact with drop wires, heddles and reeds at the loom, since baked warp ends have lost their ability to return to their original shape.

Correct these defects by installing on your slashers the Fielden Drimeter with Automatic Moisture Control. It will bring the warps off your slashers with the exact moisture content required for better weaving.

The operator simply sets the instrument for the moisture content desired. The Drimeter and automatic control regulates the slasher to run at the speed that will maintain the desired moisture content within 1%. Because the Fielden Drimeter measures moisture by a change in electrical capacitance it is unaffected by pH and is accurate on all warps, including acetates and warp dyed yarn.

SAVES ON AIR CONDITIONING AND SIZING, TOO.

Many mills run 15 to 20% higher humidities in their loom sheds than are required, trying to compensate for the excessive drying of warps during sizing.

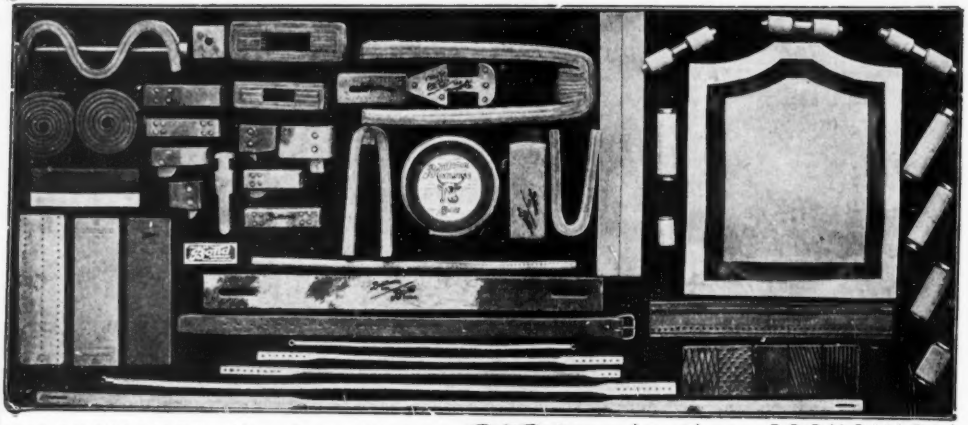
When warps contain the proper moisture content as they come off the slasher, the relative humidity in the weave shed can be reduced by 15 to 20%! In addition, by not overdrying warps, slasher speed can be increased by as much as 50%.

For further details about the economy and quality effects of Fielden Drimeter and Automatic Moisture Controls, write for illustrated descriptive literature and list of users.

Fielden INSTRUMENT CORPORATION
2920 NORTH 4TH STREET
PHILADELPHIA 33, PA.
a subsidiary of:
ROBERTSHAW-FULTON CONTROLS CO.

ORIGINAL with GENUINE
Bondaron
REG. U. S. PAT. OFF.

TEXTILE LEATHERS



PERFORMANCE—*Not Cost*—Makes Bondaron Leathers ECONOMICAL

Bondaron Reg. U. S. Pat. Off. "The Leather with the hair on"

Buying by comparison is a safe method, but too often the comparison is based on first cost rather than by *results*. Economic value can only be ascertained by actual use, when the record of performance provides enlightening comparisons.

Men, methods and machines differ. That is why Charles Bond Company is always willing to submit BONDARON Textile Leathers to intensive, practical demonstration under any mill conditions where textile leathers are used.

Test these leathers under your own working conditions. We will ship an initial order and guarantee satisfaction.

CHARLES Bond COMPANY

617-623 ARCH STREET • PHILADELPHIA, PA.

Manufacturers of Textile Leathers for Over 60 Years

TEXMA Reed Grinding and Brushing Machine

- Accommodates reeds up to 8 feet in length.
- Operates automatically—can be left unattended.
- No special tools or parts required.
- Mechanically grinds and brushes reeds in one operation.
- Grinds or brushes separately if desired.
- Eliminates slow and costly manual cleaning.
- Puts used reeds in perfect condition again.
- Prevents reeds from being unduly discarded—can be used many times over.
- Will pay for itself in comparatively short time by minimizing purchases of new reeds, and in better weaving.

Visit our Exhibit—Booth No. 503 at the 17th Southern Textile Exposition, Greenville, South Carolina, October 6 thru 11, 1952.

Southern Representative: Ira L. Griffin & Son, 1429 Bryant Street, Charlotte 1, N. C.

EDDA INTERNATIONAL CORP.
468 FOURTH AVE., NEW YORK 16, N. Y. CALHOUN TOWERS, GREENVILLE, S. C.
U. S. General Sales Agents

SEE OUR OTHER ADVERTISEMENT ON PAGE 259 OF THIS ISSUE.

What the TEXTILE MILLS are doing

Cranston (R.I.) Print Works Co. is reported planning expansion in the printing department of its branch mill at Fletcher, N. C.

Collins Yarn Processing Co. was recently organized to succeed to Hickory (N.C.) Yarn Processing Co., Inc. C. R. Collins continues as president.

Hi-Mac Hosiery Mills, Inc., Lexington, N. C., was recently chartered to operate a knitting mill. J. B. Going is one of the incorporators.

Clinchfield Manufacturing Co., Marion, N. C., is planning an expantion program at the mill, reported to cost about $2,400,000.

U. S. Fabrics, Inc., Pawtucket, R. I., has changed its name to **Greenwich Woolen Co.**

Magnet Mills, Inc., is discontinuing operations permanently at its Lake City, Tenn., branch mill, and will concentrate production at the Clinton, Tenn., plant.

American Finishing Co., Memphis, Tenn., has plans under way for expansion in the mill.

A cotton mill will replace the jute plant, destroyed by fire some months ago, at San Quentin, Calif., state prison.

Marvel Manufacturing Co., 52 Twelfth St., Fall River, Mass., was recently organized for the manufacture of textile products. Henry Kravif, 390 Johnson St., is president and treasurer.

Warwick Braid Corp., recently chartered, will manufacture elastic braid and kindred specialties. Max Margulies, 350 Fifth Avenue, New York, N. Y., is representative.

Industrial Thread Corp. has been chartered to manufacture cotton, nylon, and other threads for industrial service. Nathan M. Markowitz, 401 Broadway, New York, N. Y., is attorney and representative.

J. P. Stevens & Co., Inc., has moved its headquarters and offices to a new 16-story building at Broadway and 41st St., known as the Stevens Building. It will be occupied by the firm for sales, administration, and other clerical branches.

John P. Manning and Emery Denny, Chapel Hill, N. C., are incorporators of **Fred M. Dunean, Inc.,** recently chartered to manufacture textile products.

Lenoir (N. C.) Hosiery Mills, Inc., has under construction a two-story addition to the plant.

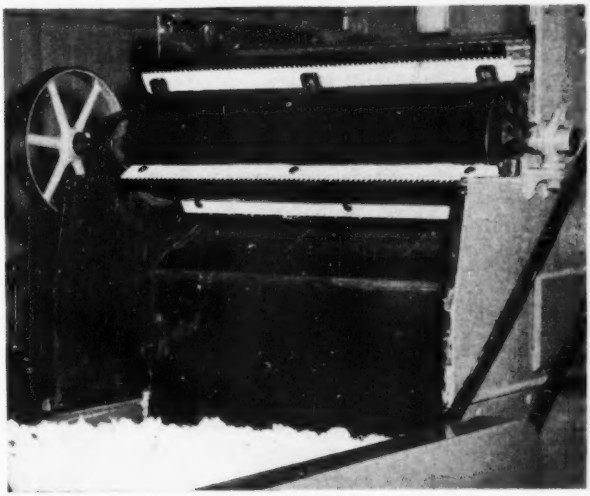
Following recent reorganization, Modern Central Dyeing & Finishing Co., Inc., has changed its name to **Modern Central Dyers & Finishers.**

(Continued on page 275)

Improved DOFFER ROLL

LOWER COST—EFFICIENT OPERATION

BRUSH INSTALLATION ON DOFFER ROLL FOR LATTICE PIN APRONS ON FEEDERS AND PICKERS

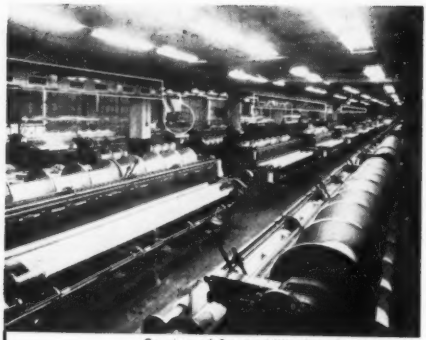


Twenty months experience of installation at one mill shows following advantages:

- Brushes show no wear—
- No chokes or machine stoppage to allow for clearing of pins—
- No packing of cotton as the brush removes it from the apron—
- Brushes fluff the cotton, thereby producing a better mix.
- Strong nylon bristles do not mat with the stock.
- Lower installation and maintenance cost.

VISIT OUR BOOTH at the Southern Textile Exposition. Let us show you newly developed brush installations, which increase the efficiency of machine production; also our newly created brushes for hand cleaning operations.

ATLANTA BRUSH CO. • ATLANTA, GA.



Courtesy of Bangor Mills, Inc., Pen Argyl, Pa.

Why?

HAVE AMERICA'S LEADING PRODUCERS OF NYLON TRICOT CLOTH CHOSEN "DRY" HUMIDIFICATION?

BECAUSE "DRY" HUMIDIFICATION:

DOES NOT REQUIRE A CENTRAL SYSTEM.

MAINTAINS UNIFORM HUMIDITY WITHOUT RELEASING ANY FREE MOISTURE.

ELIMINATES STATIC.

INSURES HIGHER BREAKING STRENGTH, FEWER END BREAKS AND DROPPED STITCHES.

PROVIDES HEATING AND COOLING IF DESIRED.

TYPICAL INSTALLATION CAN BE COMPLETED IN ONE DAY DURING WORKING HOURS.

NO EXPENSIVE UPKEEP REQUIRED.

ALSO FOR:

- CARDING
- COMBING
- ROVING
- SPINNING
- WEAVING
- THROWING

Write for Illustrated Brochures

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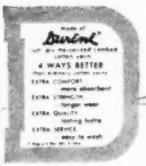
FOR KNITTING OR WEAVING

Insist on

AMERICAN & EFIRD YARNS



AMERICAN DURENE®
As advertised in leading magazines

NATURAL YARNS
Combed Peeler or Sak, 10's-90's Single
Combed Peeler or Sak, 10's-100's Ply
Carded Peeler, 8's-30's Single

THREAD DIVISION
LAWRENCEBURG, KENTUCKY

ALSO SYNTHETICS AND WORSTED YARNS

AMERICAN & EFIRD MILLS, INCORPORATED

Mount Holly, North Carolina • **W. H. SUTTENFIELD**, Vice-President and Sales Manager

Successors to American Yarn & Processing Company and Efird Manufacturing Company

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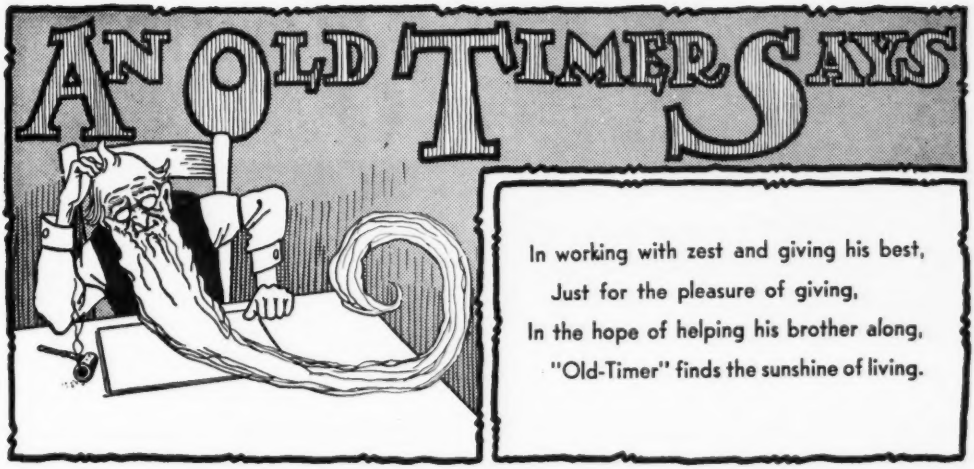
ANNISTON, ALA.
Mr. Horace Frierson


AN OLD TIMER SAYS
In working with zest and giving his best,
Just for the pleasure of giving,
In the hope of helping his brother along,
"Old-Timer" finds the sunshine of living.

A New Word: "Visioneering"

OLD-TIMER read with much interest a full page ad in TI by one of the leading mill engineering firms where the word "visioneering" was used in the script. That is a new word to us and we think a great one.

Remember all of those OLD-TIMER articles on "Imagination?" Well, the firm of engineers referred to has given us a new word, "visioneering," which is another way of saying, use your imagination. The advertisement closes with these wise words: "Textile visioneering, practically applied to a new mill or a modernization program, may be your answer to growing cost and reduced profits."

OLD-TIMER is going to borrow that word and say to you textile operating executives that you should use that thought expressed in the word "visioneering" to create new methods of manufacturing, new ways to handle operatives, new ways to separate skilled and unskilled operations by operatives, and section men especially, and very likely you can find some ways to reduce your own personal unskilled labor and convert that time to "visioneering."

Mental Speed and Mental Power

Yes, this fact surprised me too. Psychologist E. L. Thorndike found that people up to 45 learn and remember faster than young people up to 20.

After that mental speed slows up—but mental power *never*.

Why not start that course in constructive reading now.

How to Increase Your Income Tax

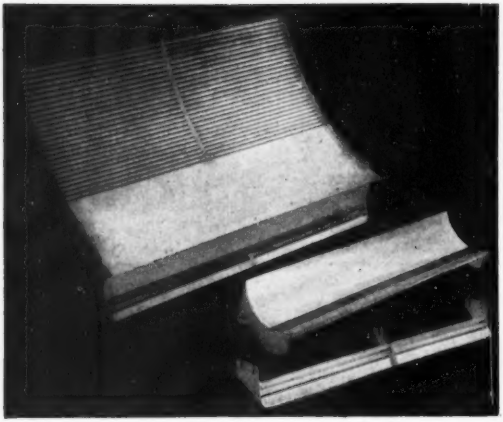
If you are doing what you really want to do, then you are not working. Wait a minute; you may misunderstand what OLD-TIMER is trying to say.

Probably this is a better way to say it: If you love your work, it is a pleasure and therefore not work. You do not become bored with it. You do not dread the coming of Monday morning—you are glad to get back to the job.

A man who has that attitude toward his job will soon be paying as much income tax as he formerly drew for a salary.

Profit by the other fellow's mistakes. You will not live long enough to make them all yourself.

A questionnaire answered by prominent executives shows that a predominant cause for complaints was lack of giving clear instructions by foremen. This research was not conducted among textile executives, but we wonder i fit does not apply to us. Has any one given the subject much thought?



TROUBLE STARTS

with ill-fitting screens

Check your card screens now. You cannot produce top grade textile products without precision fitted screens. Even sliver never comes from worn screens.

Today, as never before, it is important to replace or repair equipment *before* it becomes trouble. Sims is equipped to repair your re-usable equipment or furnish you with replacement parts. Check your equipment now, then call Sims.

REPLACEMENT PARTS

1. Spinning Cylinders
2. Spinning Cylinder Heads and Arbors
3. Card Screens
4. Picker Screens

Get the Sims CHECK LIST habit—check your equipment against the stock replacement parts list at left. It's a money saving habit.

Sims METAL WORKS

WEST POINT, GEORGIA

98 YEARS OF EXPERIENCE IN BUILDING TANKS

KETTLES
DYE-VATS
KIERS
JIB-BOXES

● Cole builds vessels to your specifications—dye-vats, kiers, starch-kettles, acid tanks, jib boxes, or other processing vessels for the finishing and dyeing industry . . . in stainless steel, nickel-clad steel, or of standard steel lined with monel metal.

And, for almost a century Cole elevated tanks have provided a dependable water supply for mills and communities.

Our long experience in the design and fabrication of tanks and vessels for the textile industry may be of help to you.

●

Write for latest Cole catalog—"Tank Talk."

Established 1854

R. D. COLE MFG. CO.

NEWNAN, GEORGIA

ELEVATED TANKS • VESSELS • CYLINDERS
TOWERS • BINS • STANDPIPES

Inc. Edward Shannon is president of the firm, which will specialize in dyeing and finishing of rayon fabrics, satins, and novelty fabrics. The plant is located at 132 Third Ave., Paterson, N. J.

A mill at Dobson, N. C., is under construction by **Washington Mills Co.**, Mayodan, N. C., for the manufacture of knit underwear for men and boys.

Salem (Ore.) Flextex Mills, a division of National Automotive Fibres, Inc., is concentrating its production on floor coverings, including carpets and rugs, instead of industrial fibers as heretofore.

Alexander Smith, Inc., has moved its executive offices to 525 North Broadway, White Plains, N. Y.

Lorraine Yarn Mills, headed by Charles La Pierre, formerly with La Pierre Industries, was recently organized in Philadelphia to spin novelty yarns for weavers and knitters.

American Dyeing Corp., Rockville, Conn., has completed an experimental laboratory occupying 2200 sq ft floor space.

Julius Kayser & Co. are planning installation of new 72-gauge knitting machines in their different mills, replacing present 45-gauge equipment.

Goodall Fabrics, Inc., 525 Madison Ave., New York, N. Y., affiliated with Goodall Sanford, Inc., has established a new division to handle all coated fabrics and plastics of the company.

Queen Knitting Mills, Philadelphia, Pa., have arranged for the purchase of mill and equipment of George Grayson & Sons Co., Darby, Pa.

The Penndel, Pa., mill of **Northwood Textile Mills, Inc.,** has been sold to American Metal Specialties, Co., Hatboro, Pa.

Aberfoyle Manufacturing Co., 123 South Broad St., Philadelphia, Pa., has plans for expansion in its synthetic yarns division.

An expansion program is under way at **B. N. B. Hosiery Co.,** Sinking Spring, Pa.

Norris Cotton Mills Co., Inc., Cateechee, S. C., is planning certain improvements and alterations at its mill.

Textron Southern, Inc., has begun operations at Honea Path, S. C., in the mill recently acquired from Westover Mills. The plant has been equipped with approximately 600 looms, and will be operated under the name of **Honea Path Textiles, Inc.** The firm has construction underway on a one-story acetate weaving mill at Williamston, S. C., and a one-story addition to the present mill for warehouse service.

Clayton Carpet Mills, Inc., Spartanburg, S. C., recently chartered, will manufacture rugs and carpets. Lewis W. Clayton is president.

Portage (Wis.) Hosiery Co. has announced plans for a two-story addition to its mill.

What the TEXTILE MILLS are doing

Anne Hosiery Co., Concord, N. C., recently chartered, has started production of 54-gauge full-fashioned nylon hosiery. It will sell both grey and finished hosiery through Pontiac Hosiery Co., Philadelphia, Pa., P. S. Isenhour is one of the incorporators.

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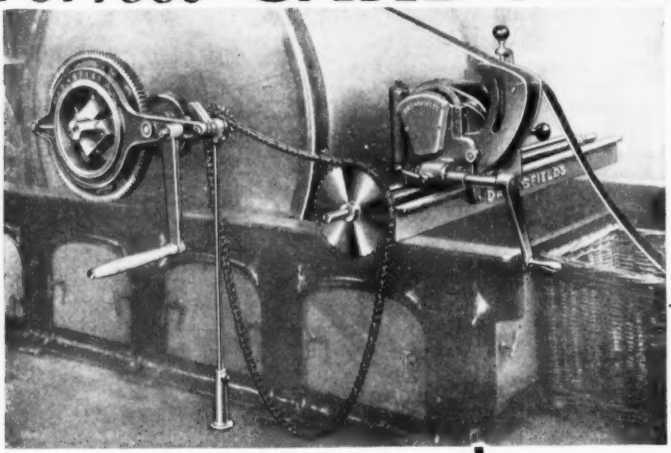

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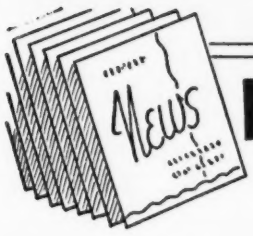

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This service is restricted to those engaged in operation and management of textile industries.

9-1. Roller Bearing Spindles. New revised catalog of Marquette Roller Bearing Spindles describes all important features and includes the patented and exclusive full-floating footstep bearing. Printed in color and well illustrated. Marquette Metal Products Company, 1145 Galewood Drive, Cleveland 10, Ohio.

9-2. Water Conditioning. New bulletin on pressure type filters for the removal of visible suspended matter from water, describes the details of design and construction of these units. Vertical and horizontal types discussed along with accessory equipment which is furnished to help promote maximum efficiency. Illustrations of installations included together with tables of capacities, dimensions and weights. Graver Water Conditioning Company, 216 West 14th Street, New York 11, New York.

9-3. Portable Bag Closer Brochure describes the Fischbein Portable Bag Closer which is simple to use and closes bags tightly and securely. Stitches described as being tight and uniform in length and usually operate at four to the inch. Operates on 110 Volt A. C., D. C. any cycle, and weighs only 10½ pounds. Advantages discussed. Dave Fischbein Company, 38 Glenwood Avenue, Minneapolis 3, Minnesota.

9-4. Dyeing and Finishing Manual. The 1952 edition of "Dyeing and Wet Finishing Techniques for Dynel," a manual containing the latest information on applying colors and finishes to the new man-made fiber. Techniques discussed bring the recommended procedures up to date with new developments and experience gained since the March, 1951, manual was published. Complete manual represents considerable research. Textile Fibers Department, Carbide and Carbon Chemicals Company, 30 East 42nd Street, New York 17, New York.

9-5. Industrial Spray Nozzle. Anyone interested in spray nozzles for humidification in textile mills and processing plants will find a wealth of information in this new 40 page Industrial Nozzle Bulletin. One of the most comprehensive ever prepared on the subject, it fully describes industrial spray nozzles for a broad range of processes, and includes dimensions, capacities and spray angles. Binks Manufacturing Company, 3122 Carroll Avenue, Chicago 12, Illinois.

9-6. Roller Chain Book. A new 148 page roller chain engineering data book which is one of the most comprehensive ever developed on roller chain and its application is now available. Detailed engineering information covers the selection, installation, lubrication, and maintenance of roller chain for drives and conveyors and sprocket wheels. Photos and line drawings of the many types and sizes included. Link-Belt Company, 307 North Michigan Avenue, Chicago, 1, Illinois.

9-7 Instruments Accelerate Research. Bulletin 15-14 entitled, "instruments accelerate research", has been augmented to include many items not covered in the previous edition and has been brought up to date to include the latest designs of various analytical equipment. 96 pages, include complete illustrations and pictures of the latest instrument and equipment in the laboratory, analytical and measurement fields. Minneapolis-Honeywell Regulator Company, Brown Instrument Division, Wayne and Windrim Avenue, Philadelphia 44, Pa.

9-8. Static Problems. Five-page paper discusses static problems present in textile industry and in processing synthetic fibers. Present control methods are summarized in relation to their efficiency and uses in static reduction, and schematic diagrams aid in telling the story of diffuse discharge control of static. The John Hewson Company, 106 Water Street, New York 5, New York.

9-9. Executive Manual. A unique 60-page manual (of the textile industry), compiled by Burroughs, contains information covering practically every phase of the business of textiles. Better and more profitable accounting methods brought out and a good summary of each phase will make this an excellent reference book. Burroughs Adding Machine Company, Detroit 32, Michigan.

9-10. Plastolein Plasticizers. A new 24 page booklet featuring the complete line of Emery Plastolein Placticizers contains considerable useful information on testing of Plasticizers, including ultra-violet stability and heat stability. Test methods and stabilizer data also included. Emery Industries, Inc., Department 5, Carew Tower, Cincinnati 2, Ohio.

9-11. Process Industries Bulletin. Companies in the process industries now have available an especially prepared bulletin of valves and meters developed by the Rockwell Manufacturing Company, and believed to be the first of its type. This new bulletin pictures and explains the various applications in process industries of Rockwell meters, remote registration units, and Rockwell-built Nordstrom valves. Process applications described and pictured. Rockwell Manufacturing Company, 400 North Lexington Avenue, Pittsburgh 8, Pennsylvania.

9-12. What's a Silicone? This question is asked of men who sell the Silicones half a million times a year, more or less, and for every time the question is asked a different and partly correct answer could be given. You can describe an unknown quantity only in terms of what it does, and that's what happened when Dow Corning undertook to write this 32 page booklet. You will find this booklet, both pleasant and profitable to read. Dow Corning Corporation, Midland, Michigan.

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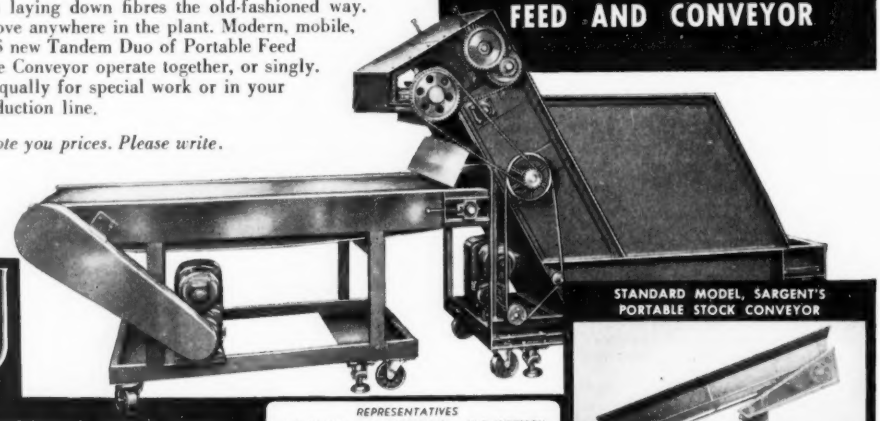

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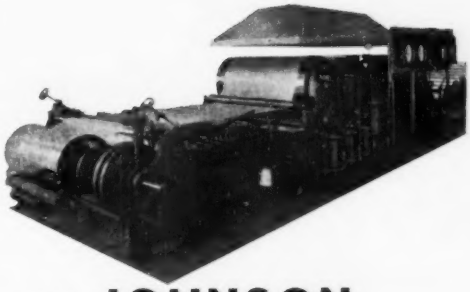

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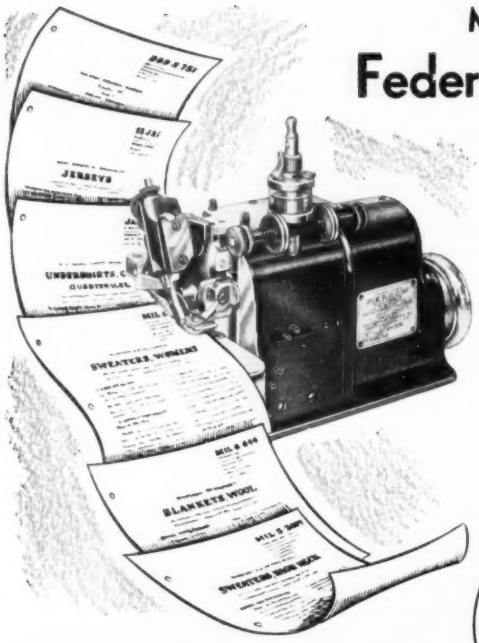

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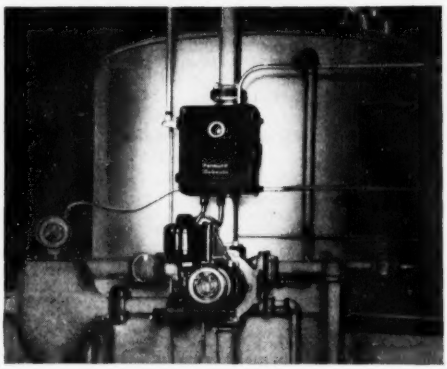

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415 **DOUBLE-TWISTER FOR LARGE PACKAGES**—Bulletin describing two new machines producing straight or tapered top bobbins. Suitable for filament or spun yarns up to three pound capacity. Individual thread stop motion fully discussed.—FLETCHER WORKS, INC., Philadelphia, Pa.

420 **AUTOMATIC FILLING WINDING**—Eight page, two color booklet describing the operation and mechanism of the Hacoba winder.—ATKINSON, HASERICK & CO., 211 Congress St., Boston, Mass.

435 **DOUBLE DECK TWISTERS**—Bulletin describes Jumbo (8 oz. to 16 oz. headless or take-up spool packages) and Acme (up to 10 oz. packages) models for high speed twisting of silk, rayon, nylon, etc., to finest deniers.—U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

448 **TURBINE LUBRICATION** — Problem of oxidation, emulsification, foaming and sludging, as related to turbine lubrication discussed in folder entitled "Turbo-Drive".—E. F. HOUGHTON AND CO., Philadelphia, Pa.

451 **CYLINDER BEARING**—New bulletin available describing and illustrating the cylinder bearing for spinning frames and twisters. This bearing fits all popular makes and is self-aligning. — SOUTHERN STATES EQUIPMENT CORP., Hampton, Georgia.

455 **PIN DRAFTS** — Catalog describing the use and features of the machine, what it can do to cut costs in the processing of natural and synthetic yarns, along with specifications and installation data.—WARNER & SWASEY CO., 5701 Carnegie Ave., Cleveland, Ohio.

456 **WARP TYING**—Bulletin T-2 on the "Two-In-One" Titan automatic warp tying machine—speed, flexibility, efficiency, and economies fully discussed.—EDDA INTERNATIONAL CORP., 470 4th Ave., New York City, New York.

459 **TENSION CONTROLS**—Folder describing tension compensation and automatic tension controls. Three models—Standard, Warp, and Double Disc Fully described with specific application.—WALTER KIDDE & CO., INC., Belleville 9, N. Y.

461 **PRECISE WIND MACHINE** — Form A-92 describes the Foster Model 75 widley used for winding straight or pineapple cones and tubes of rayon, nylon and other filament yarns.—FOSTER MACHINE COMPANY, Westfield, Mass.

462 **TEXTILE MACHINERY PARTS CATALOG** — A 24-page illustrated catalog describing the complete line of Dayco and Thorobred textile machinery parts including Cots, Aprons, Loop Pickers, Lug Straps, etc.—DAYTON RUBBER CO., Dayton, Ohio.

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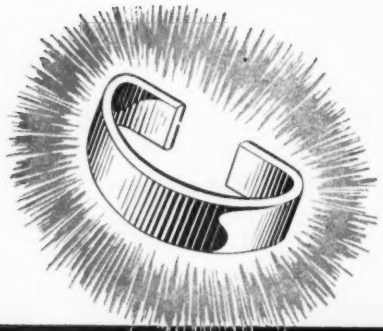

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WEAVING, SLASHING

503 **WEAVER'S KNOTTER**—A catalog on the Boyce Weaver's Knotter giving a few instructions as to its use, recommendation as to the proper type knotter for the various types of yarns and the spare parts that go to make up the knotter.—A. B. CARTER, INC., Gastonia, N. C.

507 **VARIABLE SPEED SLASHER DRIVE** — Reeves bulletin G-503 describes their Servo-Control slasher drive which automatically controls tension from creel to beam, and which controls the stretch in the slasher.—REEVES PULLEY CO., Columbus, Ind.

510 **THE ROMANCE OF PRAIRIE GOLD**—Attractive illustrated book which tells the story of corn and the uses of corn products to industry.—CORN PRODUCTS SALES CO., 17 Battery Place, New York, N. Y.

513 **SEYCO PENETRANTS FOR YARN CONDITIONING**—Folder describing the scientifically formulated Seyco sizing.—SEYDEL-WOOLLEY & CO., 748 Rice St., Atlanta, Ga.

523 **OVERHEAD MOUNTS FOR BIGGER LOOM BEAMS**—Folder illustrating and describing how bigger beams can be adapted under all mill conditions, includes handy Multiplier Table showing increased yarn capacity possible with bigger beams.—WEST POINT FOUNDRY & MACHINE COMPANY, West Point, Ga.

526 **LOOM EQUIPMENT** — Folders on flat heddles, frames, and reeds for all types of looms and weaves.—WALKER MFG. COMPANY, DIV. DRAPER CORP., Atlantic & Ruth Sts., Philadelphia 34, Pa.

528 **PARTS CATALOGS FOR WPF&M SLASHERS, SIZE KETTLES AND PUMPS**—This 42-page illustrated catalog of parts contains exploded views and parts numbers for quick identification.—WEST POINT FOUNDRY & MACHINE COMPANY, West Point, Ga.

DYEING, FINISHING, CLOTH ROOM

612 **PIXOL**—Recommended as a leveling and penetrating agent, especially for the dyeing of wool, described as being useful as a finish for worsted piece goods. Prevents bronziness in sulphur dyeing on cotton. —AMERICAN ANILINE PRODUCTS, INC., 50 Union Square, New York, N. Y.

625 **BALL BEARING ROLLER TYPE SCRAY** — Circular No. 904 describing the scray which is for use in handling heavy and large size rolls of cloth. This is used either in finishing plants or in the cloth room of cotton mills.—BIRCH BROS., INC., Somerville, Mass.

626 **GUIDER AND GUIDING EQUIPMENT** — This booklet entitled "Mount Hope Precision Guider and Guiding Equipment" describes this latest development in guiding equipment. The new guider, it is claimed, makes possible automatically controlling the lateral movement of cloth within closer limits than ever before possible.—MOUNT HOPE MACHINERY CO., Taunton, Mass.

627 **SINGLE APRON STOCK DRYERS**—Folder presenting the latest idea in automatic drying which every mill having drying problems can profitably use to meet modern manufacturing conditions.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

632 **LUG STRAP WASHERS** — Series 1-C illustrated bulletin detailing right and wrong application and use of washers.—E. H. JACOBS NORTHERN DIV., Danielson, Conn.

635 **TWO BURNER VERTICAL SINGER**—Described as consisting of adjustable tension device, air guiders (optional), guide rolls to guide cloth between the burners, and solenoid-controlled pneumatic cloth deflector to move cloth from burners when stopping and throws in electrically when starting. Pictured and fully discussed.—BIRCH BROTHERS, INC., 32 Kent St., Somerville 43, Mass.

639 **ROTARY DYEING MACHINE**—Booklet No. 425 illustrating the features of these stainless steel machines used for dyeing hosiery, hats, gloves, socks, etc.—SMITH, DRUM & CO., Allegheny Ave. at 5th St., Philadelphia 33, Pa.

651 **IMPROVED SHEARING OPERATIONS** — The Slack Selvage Eliminator Bulletin describes this Mount Hope machine, and discusses the speed-up in shearing operation and the elimination of cutting of the material due to slack selvages.—MOUNT HOPE MACHINERY COMPANY, 18 Fifth St., Taunton, Mass.

DYESTUFFS, CHEMICALS, SOAPS

702 **DEFOAMERS**—Bulletin AA-2 lists uses and properties of Antifoam A, which can be effectively used at 10 to 200 ppm in most industrial applications. Emulsions available, improve dispersability in aqueous systems.—DOW-CORNING CORP., Midland, Mich.

705 **THEORETICAL AND APPLIED SILK-SOAKING** —Attractive 23-page booklet outlining methods of silk-soaking and outlining investigation on the soaking, back-winding and degumming of silk.—HART PRODUCTS CORP., 1440 Broadway, New York 18, N. Y.

715 **AQUAROL AND ARKANSAS PRODUCTS**—Bulletin on Aquarol water repellent finish with method of preparing bath; also on other Arkansas products for cotton, wool, silk and yarn, hosiery processing. — ARKANSAS CO., INC., Newark, N. J.

721 **SURFAX** 1288-Product data sheet explains this useful wetting and rewetting agent, described as being water soluble at all temperatures and is a highly concentrated, economical surface active agent. E. F. HOUGHTON & CO., 303 W. Lehigh Ave., Philadelphia, Pa.

749 **WATER SOLUBLE GUMS** — Booklet giving the origin, gathering, marketing and uses of water soluble gums. This booklet No. 23 is beautifully illustrated, and is one of the few treatises on the subject.— JACQUES WOLF & CO., Passaic, N. J.

762 **ONYX TECHNICAL DATA SHEETS** — Two new data sheets describing the use, advantages, and applications of Xyno Resins S 69 and Xyno Resin 3862.—

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768 **TEXTILE CHEMICALS**—Buying guide and reference book giving facts about Amalgamated Products, the fabrics on which they give best results, their proper application, and their chemical composition. —AMALGAMATED CHEMICAL CORP., Philadelphia 34, Pa.

769 **SURFACE TENSION DEPRESSANT**—The Booklet, "Mercerizing and Alkamerce—The Ideal Dry" which can be used as a wetting agent; a dye leveling agent, a penetrant in package dyeing.— HART PRODUCTS CORP., 1440 Broadway New York, N. Y.

774 **ROYCE TEXTILE CHEMICALS** — This booklet briefly describes the leading Royce products for textile processing, printing, dyeing and finishing. — ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.

KNITTING

805 **REINER CREELS**—Catalog describing these Single type, magazine, and Truck Creels for all requirements in the knitting and weaving industry. —ROBERT REINER, INC. Weehawken, N. J.

808 **REINER WARPER**—Full width and sectional warpers for all requirements in the knitting and weaving industry fully described in recent catalog.— ROBERT REINER, INC. Weehawken, N. J.

818 **FORGED HEAD ALUMINUM BEAMS**—Bulletin 49-A shows new beam capable of holding high yardage of nylon and rubber warps, with specifications. Also describes permanent mold aluminum tricot and section beams.—MILTON MACHINE WORKS, INC., Milton, Pa.

822 **HIGH SPEED JERSEY CIRCULAR MACHINE**—Booklet describing Supreme's line of high production, body-size and large diameter jersey machine, Model MJ, for underwear and outerwear.—SUPREME KNITTING MACHINE CO., 105 Johnson Ave., Brooklyn 6, N. Y.

828 **THE KIDDE KNITTER**—Bulletin describing this newest in Raschel-type warp knitting machines and higher production attained with it.—KIDDE MANUFACTURING CO., INC., Farrand St., Bloomfield, N. J.

SEWING MACHINES

916 **THE SUPERLOCK**—Bulletin 828 describing and illustrating the W & G Superlock overseaming machine.—WILLCOX & GIBBS SEWING MACHINE CO., 214 W. 39th St., New York 18, N. Y.

919 **FEED-OFF-THE-CAM FELLING MACHINE** — Bulletin No. 896, illustrates and describes the "Feldlock" with Automatic Lubrication, for lap seam felling on shirts, pajamas, shorts, slacks, etc.—WILLCOX & GIBBS SEWING MACHINE CO., New York, N. Y.

MATERIALS HANDLING

1007 **OVERHEAD HANDLING EQUIPMENT** — 56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem — THE AMERICAN MONORAIL CO., 13106 Athens Ave., Cleveland 7, Ohio.

1010 **CONVEYOR KEY BOOK**—A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1025 **ELECTRIC HOISTS AND CRANES** — Booklets describing a complete line of Electric Overhead, Cab and Floor-Operated Traveling Cranes, and a similar complete line of Electric Hoists. All fully discussed with pictures and engineering diagrams.—SHEPARD NILES CRANE & HOIST CORP., Montour Falls, N. Y.

1027 **SINGLE-BEAM CRANES**—Bulletin No. 130 describing and illustrating the single beam type of overhead traveling crane.—SHEPHARD NILES CRANE AND HOIST CORP., Montour Falls, N. Y.

1030 **CDF RECEPTACLES**—This 32-Page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specifications are given on each item. — CONTINENTAL-DIAMOND FIBRE CO., Newark 11, Del.

1033 **WIRE ROPE ELECTRIC HOISTS** — 4-page bulletin describing R & M Type "J" Wire Rope Electric Hoist. Lug, Hook, or Trolley suspension. Capacities from 500 to 2000 pounds. Bulletin 451.—ROBBINS & MYERS, INC., Hoist & Crane Div., Springfield, Ohio.

MISCELLANEOUS

1107 **AUTOMATIC QUILL POLISHER** — Bulletin describes production machine for refinishing loom bobbins. Tells how quills can be kept in perfect condition at minimum labor cost.—J. M. NASH CO., 2360 N. 30th Street, Milwaukee 10, Wis.

1108 **FABRICATION OF U. S. STAINLESS STEELS** —136-page book covering use of stainless steel in textile equipment from cutting to cleaning. Includes corrosive-resistance tables for chemicals.—CARNEGIE-ILLINOIS STEEL CORPORATION, Pittsburgh, Penn.

1112 **THE RANDOM WEB PROCESS**—Bulletin No. 101 describes the Rando-Webber and Rando-Feeder machines, and discusses the origin and development of the Random Web process which produces a non-oriented web suitable for processing into felts, wadding, heavy mats and non-woven fabrics on a continuous basis. Engineering data and cut-away diagrams.— CURLATOR CORPORATION, Textile Division, 565 Blossom Rd., Rochester, N. Y.

1113 **MACHINE KNIVES**—Catalog and price sheets describing the company's line of knives for use on textile machinery.—TAYLOR-STILES & CO. 21 Bridge St., Riegelsville, N. J.

1117 **CUSTOM MADE THREAD GUIDES**—Illustrated booklet describing uses and physical properties of the "AlSiMag" line of Thread Guides. Advantages fully discussed with picture and specifications of each type.—AMERICAN LAVA CORP., Chattanooga 5, Tenn.

SEPTEMBER, 1952

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News in Brief

(*Continued from page* 123)

Garnett Laboratory at PTI. The National Association of Waste Material Dealers, Inc., plans to dedicate a reprocessed and reused fiber laboratory at Philadelphia Textile Institute this fall. The project will be similar to the one recently completed at Lowell Textile Institute.

New Color Theory. An Italian scientist has arrived in the United States armed with 2000 pounds of literature dealing with psychophysical color theories which he claims will make obsolete many industrial processes involving color. Hithertofore unpublished, the information is to be incorporated in patents touching 32 different fields including television, cinematography, typographical operations, still photography, color measurement, pigment and dye manufacture, and textiles.

This scientist is now demonstrating the validity of his basic theories with apparatus that permits alteration of all spectral colors without loss of luminosity or saturation. The device used in this instance is said to have valuable textile application. It will enable a designer to alter the chromatic value of one or several colors of a pattern in a fabric, independently of other colors in the pattern, until the most desirable combination of colors is produced.

In this way, the scientist proposes that the number of samples which would be knitted or woven from a specific pattern can be drastically reduced, thus allowing savings in sample making. For example, instead of knitting a stripe pattern T-shirt fabric in a variety of color combinations, only one prototype sample need be knitted and from this sample a determination can be made of the most desirable colors for the line without further trial and error.

No Federal Aid to Develop Wool Substitutes. The Defense Production Administration has confirmed officially that manufacturers of so-called "wool substitute" synthetic fibers will receive no tax amortization benefits and that no expansion program will be set up for them with government aid.

Austrian and German Stockings. At the present time it is estimated that between 5 and 6,000,000 pairs of Austrian nylon and Perlon stockings are exported to Germany every year and that smuggled quantities may double the figure. On the other hand, German manufacturers are looking toward world markets for their Perlon products and hope to expand exports to 15,000,000 pairs yearly.

Mexican Rayon Production. Celanese Mexican recently announced that its production had risen 30%

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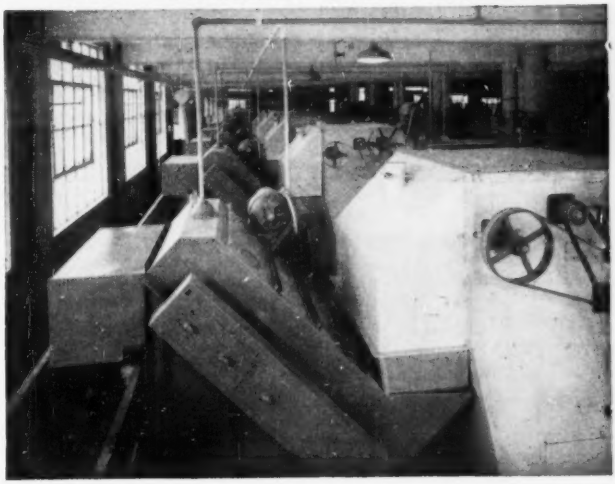

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For use between hopper and conveyor.

Delivers to regular cleaning line.

Completely opens and pre-cleans small amount of cotton delivered to each hopper in battery, so that machines in regular cleaning lines do *more cleaning with less staple breakage.*

Requires 43" between hopper and conveyor table.

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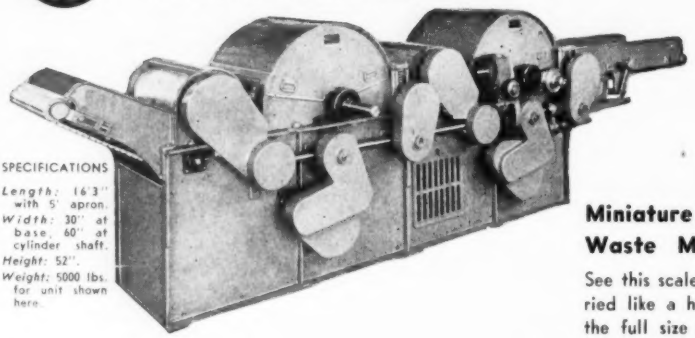
For better "HARD WASTE" Processing see us Oct. 6-11 at Southern Textile Exposition

Booth 239

TANDEM APPLICATION WASTE MACHINE



SPECIFICATIONS
Length: 16'3" with 5' apron.
Width: 30" at base, 60" at cylinder shaft.
Height: 52".
Weight: 5000 lbs. for unit shown here.

Made especially for processing "Hard Waste" in cotton, rayon, or wool, this TANDEM APPLICATION combines two or more units of the K&D Single Cylinder Waste Machine into one housing. We will gladly explain the advantages of this TANDEM APPLICATION at the Southern Textile Exposition.

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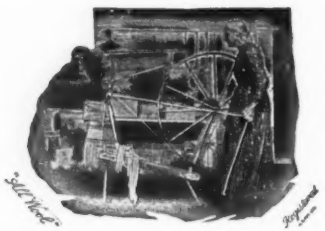

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since 1947, and during the first half of this year production was expected to increase another 10%. Celulosa de Chihuahua has recently been formed in Mexico. Initial capital is 70,000,000 pesos of which the Italian rayon firm Snia Viscosa provided 25%. A cellulose plant is to be built in two years at Temosachic (Chihuahua) at a total cost of 140,000,000 pesos. 120,000,000 pesos will be spent on machinery, much of which will be Mexican. Plans call for the production of 40,000 tons of rayon cellulose pulp per year. Some of this is scheduled for export.

Worth Street Historical Society Organized. The Worth Street Historical Society has been organized to collect historical data about the New York City textile market and to publicize the history of the Worth Street area. Textile firms are requested to lend their old records, pictures, samples, etc., to the Society. Frank L. Walton of Catlin Farish Co., Inc., is president. Temporary headquarters of the Society will be at 40 Worth Street.

Jute in British Guiana. At an estimated cost of $1,500,000, an experimental jute cultivation scheme is to be launched in British Guiana by the British Jute Trade Research Association. About 100 acres in the Berbice region will be cultivated for the plan.

Full-Fashioned Conversions to 60 and 66 Gauge. Recently there has been an increase in the number of hosiery manufacturers regauging full-fashioned machines to 60 and 66 gauge. Many 51-gauge machines are being converted to the finer gauge. Firms throughout the United States, Brazil, and Mexico are reported changing over.

Plastic-Coated Fiberglas Sail. Vinyl plastic-coated Fiberglas sails are being used on lightweight sail boats. Coated with a vinyl plastisol made from Geon paste resin, a product of B. F. Goodrich Chemical Co., the Fiberglas sails are said to require virtually no care and are mildew resistant. The material is easily washed with ordi-

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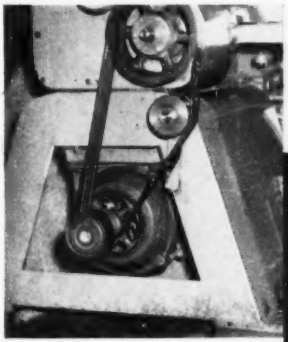

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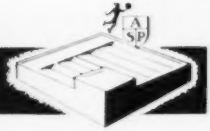

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VERSENE Fe-3 Specific*

This is the most powerful iron complexing agent known in normal pH range. For iron contamination problems only.

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Complexes iron and other metal ions such as calcium, copper, magnesium, cobalt, nickel, etc.

Use the Versenes whenever you have a problem in metallic ion contamination. As chemistry's most *precise* chemicals they give you *mathematical control over cations in solution.* For cleaner cloth, whiter whites and brighter colors; in scouring, bleaching, dyeing and general processing, the Versenes can help you economically and efficiently.

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7. LUBRITONE is very economical and easy to use.

We highly recommend its use in the last rinse to lubricate package or skein dyed yarns.

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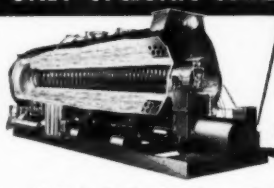

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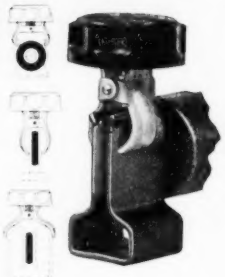

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nary soap and water. The Geon vinyl protects the sails from grease, oil, dirt, salt water, acids, alcohol, alkalis, and weathering.

New Hosiery Yarn. Farbenfabriken Bayer of Dusseldorf, Germany, has introduced a hosiery yarn made of wool, Perlon, and Cuprama.

Proposed Revision of Cotton Import Regulations. Five plant quarantine orders and regulations applicable to importation into the United States of cotton lint, cotton wrappings, cotton seed, and cotton and cottonseed products have been revised and consolidated into a single quarantine order and set of regulations that are now ready for public consideration. Complete details of the proposed quarantine and regulations are in the Federal Register of July 16. Existing orders are imposed solely as a safeguard against the entry of the pink bollworm in cotton. The proposed quarantine would include as an additional basis for quarantine action the hazard of introducing the golden nematode of potatoes and the flag smut disease of wheat in used cotton bagging.

Mexican Tire Cord Production. Celulosa y Derivados S. A. expects to reach a daily production of five tons of tire cord by early 1953. The plant is scheduled for ultimate production of 240 tons per month to meet most of Mexico's tire cord requirements.

—◆—

An Executive Views the News in Textiles

(*Continued from page* 125)

Keynoter. Some of those who watched the antics of Governor Paul A. Dever of Massachusetts, as he presented the keynote address at the Democratic National Convention, may have recalled another occasion, when the Commonwealth Governor had a great deal to say about the textile industry. This was the occasion of the annual meeting of the National Association of Cotton Manufacturers, which was held at Swampscott, Massachusetts, approxi-

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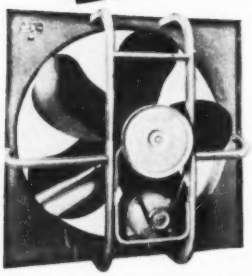

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For factories, mills, theatres, schools, hotels and churches. Features belt drive with ball bearing motor and fan shaft. Sizes from 24" to 72".

STEP-UP OUTPUT and quality of workmanship, reduce industrial accidents and employee fatigue with proper ventilating and cooling equipment. CHELSEA Fans remove excessive heat, fumes, dirt, dust and grit, also dead stale air. 30 models, in over 200 sizes, are available, and each fan or blower is especially engineered and tested for its recommended applications. All ratings are certified by P.F.M.A. test methods to insure proper performance. Check on your ventilating requirements, now.

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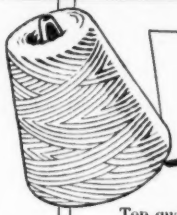

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Top quality, knotless, high speed, rated by constant users as equal to or better than many combed threads. Particularly adaptable for high speed bag closing and multiwall bag manufacturing.

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Medium Grade Knotless Thread for high speed bag closing.

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mately a year ago. Some of those who were present reported that Governor Dever's claim of friendship for Massachusetts' industry was received with boos and jeers. Some of those present also reported that Governor Dever's address had done nothing to improve the relationship between northern textile mills and southern mills.

We are not trying to draw any moral by this, but merely wish to remind you readers that the Dever who addressed the National Association of Cotton Manufacturers last year is the same gentleman who presented the oration, complete with gestures, before the Democratic National Convention.

—◆—

Instructions for Weave Room Lubricating Personnel

(*Continued from page* 189)

or grease immediately.

3. Oiling Instructions

(a) Keep picks handy at all times and clean out oil holes. Plugged oil holes cause underlubrication or frequently no lubrication. Fill the oil hole only. Excess oil will not find its way into the bearings and will collect lint rapidly, siphoning properly applied oil from the bearing.

(b) Wipe lint deposits from vicinity of oil holes. Very little of the oil deposited in the lint over the oil hole will flow into the oil hole.

(c) Wipe oil from outside of bearing whenever present. There will be less lint collected on the part.

(d) Tighten loose oil cups, leaving them in an upright position.

(e) Replace all damaged oil fittings and all fittings that are missing.

(f) The caps usually found on oil fittings prevent oil contamination. See that they are working properly and are closed after oil is applied.

(g) Remember that excessive lubricant will not be retained by the bearing even though properly applied. Excessive oil on the machinery parts outside of the bearing is useless and expensive.

4. Greasing Instructions

(a) Wipe lint and grease deposits from fittings before and after application, and wipe the nozzle of the grease gun clean after each application. This will minimize the chances of forcing lint into the

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Advisory Committee on Static Electricity

A seven-man advisory committee on static electricity has been formed under the auspices of the New York Section, AATCC, to "recommend fields of research related to static electricity for study by the national AATCC as well as for a paper on static to be presented in the society's annual intersectional competition." Immediately after a recent luncheon session, committee members were requested by Chairman Sidney M. Edelstein, Dexter Chemical Corp., to submit suggestions "as to methods or points of attack on the static problem" to be used as material for discussion at the September meeting.

Mr. Edelstein outlined briefly some of the problems confronting textile manufacturers and consumers as the result of static and then introduced each member of the newly-formed committee.

Dr. O. I. Bloom, hospital administrator affiliated with the Union Health Center, reported that at the present time the man-made fibers were barred from operating rooms due to the danger of explosions caused by static sparks. He outlined the methods taken to insure against explosions even when natural fibers were worn or used.

Other members, besides Mr. Edelstein and Dr. Bloom, are: J. B. Goldberg, J. P. Stevens Company; Robin Beach, Beach Engineers, Inc.; S. C. King, Carbide and Carbon Chemical Company; Dr. S. W. Brainard, E. I. du Pont de Nemours & Co., and J. J. McGuinness, Dexter Chemical Corp., secretary.

Mr. Goldberg, discussing static in mills where the newer fibers are being handled, asserted that the charges were so great that troubles and slowdowns occurred regularly.

Both Dr. Brainard and Mr. King reported that their companies were seeking chemical means to meet the problem of static in the processing and use of the synthetic fibers. Both were in agreement that it was necessary to find a finish which not only would eliminate or minimize static but enable the user to wash or dry clean garments without removing an anti-static finish.

The group also discussed the lack of instrumentation which is holding back research into the problem and the unreliability of the method of testing for static with present equipment.

bearing with the grease. Lint inside the bearing will consume space needed for lubricant, and contains particles which soon will cause excess wear. Such lint will frequently prevent passage of lubricant through fitting, jamming the balls and retainers, and causing premature failures.

(b) Wipe lint deposits from bearing. These lint deposits will siphon the oil from the grease, leaving only harmful compounds.

(c) Tighten loose grease fittings, leaving them in proper position to receive the nozzle of the grease gun squarely.

(d) Replace all damaged grease fittings and all fittings that are missing.

(e) If grease will not pass through the fitting:

(1) Wipe grease from outside of fitting.

(2) Check for loose fitting and then place gun nozzle squarely on fitting with sufficient pressure and check again for proper passage of grease.

(3) If grease still does not pass through the fitting, try moving the bearing or journal or otherwise jarring the bearing while operating the grease gun. If possible, grease bearings while machine is in operation, but only if bearing does not move and does not involve risk of injury.

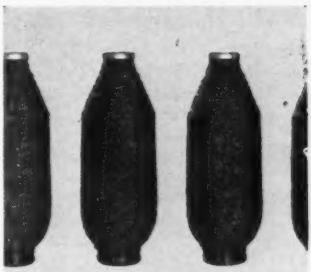
(4) If grease still does not pass through the fitting, remove fitting and check it for proper passage. Install new fitting if required.

(5) If this does not correct the trouble, inform the fixer who will make the necessary repairs.

(6) Make a note of this difficulty and return later to lubricate the bearing, unless the trouble is corrected immediately.

5. Exposed Grease-Packed Bearings.

(a) The outer layer of grease will collect lint, therefore, this



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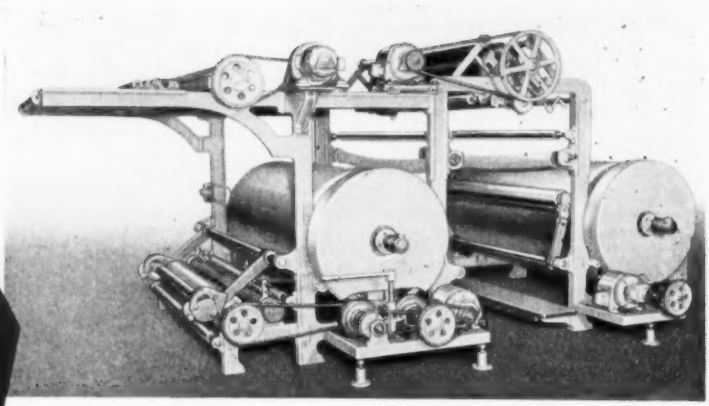

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John:
Those analyses which the Penick & Ford Textile Laboratory in Atlanta made for us certainly helped solve our warp sizing problems.
Jim

layer should be removed before additional grease is applied.

6. Oiling Exposed Gears and Cams

(a) A brush saturated in the proper oil should be pressed against the part while the machine is in motion. The proper amount of lubricant must be determined through experience. The presence of oil on the floor or a splashing effect are signs of wasteful overlubrication. Be extremely careful that brush does not get caught in gear teeth. If possible, apply oil to gear rotating away from meshing point.

7. General

(a) Keep all lubricating equipment clean and in proper working condition.

(b) Be sure that the proper lubricant is used and that the established frequency is maintained.

(c) Avoid both under and overlubrication.

(d) Observe condition of bearings and report excessive wear and dry bearings. This may result in changes in frequency, lubricant, or in lubricating means, and is important.

(e) Keep oily rags in can provided and keep cover on can. This will remove danger of spontaneous combustion.

(f) Do not permit oil to spill on drum tops and floor in the bulk storage area as well as in the working area. Wipe up all oil that is spilled.

(g) Work safely.

Switzers Granted Right to Fluorescent Fabric Patent

The United States Court of Appeals for the District of Columbia has ruled that Switzer Brothers, Inc., of Cleveland, Ohio, are entitled to a patent on daylight fluorescent fabrics and on the Switzer process for producing these fabrics.

Following are statements from the formal opinion of the court summing up the essential facts of this case:

"The claims of the patent concern a process of dyeing fabrics to obtain a daylight fluorescence, and a composition of matter comprising fabrics so treated. . . .

"Switzer and Ward discovered that if the molecules of a fluorescent dye are dispersed throughout the filaments of a fabric, instead of being coated on the outside of the filaments, the dye will emit a fluorescence in response to and in the presence of ordinary visible light. It appears that when these molecules are thus dispersed the fabric not only reflects the selected color, as it does under ordinary dyeing, but utilizes the light energy which is wasted when the fabric absorbs the other colors, and so emits a fluorescent light, in the selected color, in addition to the reflected light. . . .

"Appellees used well-known dyes and well-known fabrics, and the several separate steps of their process, such as immersion, drying, etc., were all well known. However, the precise steps taken by them, the proportions of the ingredients used, the order in which the steps were taken, and the various other details were new with them. Daylight fluorescent fabrics were wholly unknown until the present invention, and such a result was neither referred to nor hinted at in any prior art. The prior art dealt with ordinary dyes, ordinary dyeing processes, and ordinary dyeing results. We can find nothing in the prior art which would lead one to suspect or to achieve the results of the present invention. . . . "

The claims involved in this suit cover not only the Switzer process of producing daylight fluorescent fabrics, but substantially any daylight fluorescent fabrics now on the market, regardless of the particular process by which the fabric may be produced, the announcement states. The fabrics covered include yarns, felt, knitted textiles and the like, as well as woven textiles.

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Personal NOTES
ABOUT MEN YOU KNOW

George D. McKinney of Jeannette Hosiery Mills, Inc., has been elected president of the Independent Association of Stocking Manufacturers. Vice-presidents elected were **Clarence Mesirov,** Ruby Ring Co., and **John A. Beck,** Moreck Hosiery Co. **Walter Semday,** S. & S. Hosiery Mills, was made treasurer, and **Edward M. Rand,** executive secretary.

Harold J. Walter, president of Bachmann Uxbridge Worsted Corp., is chairman of the executive committee of the National Association of Wool Manufacturers. **Glen F. Brown** has been named secretary-treasurer, succeeding Walter Humphreys, retired.

Walter E. Lovely is now overseer of winding, dressing, and weaving at Gonic (N. H.) Manufacturing Co.

Ralph E. Curtis, formerly general superintendent, is now plant manager at the Bates division of Bates Manufacturing Co. Other promotions are: **Roger A. Landry** to superintendent of yarn manufacture, and **William P. Malloy,** superintendent of weaving.

Robert Napier has joined Wachusetts Spinning Mills, Fitchburg, Mass., as sales manager. He was previously with Arlington yarn division of William Whitman Co.

James N. Scott, formerly with Utica Knitting Co., has accepted the position of production manager at Straus Knitting Co., St. Paul, Minn.

John Gaffney has succeeded **Edward Hartmann** as plant manager of Ludlow (Mass.) Manufacturing & Sales Co. Mr. Hartmann is now in the Boston office of the firm.

Richard N. Stone and **Seymour Seidman** were recently elected vice-presidents of Wamsutta Mills. **Harold V. Banks** was named assistant treasurer.

The National Association of Manufacturers has announced the appointment of **M. Earl Heard,** vice-president in charge of research at West Point (Ga.) Manufacturing Co., to the Committee on Research. This committee consists of some 200 executives representing a broad cross-section of American industry.

George E. Auclair has left Burlington Mills to become chief chemist with the Mount Hope Finishing Co., Butner, N. C.

R. G. Carson and **J. C. Hubbard** have been promoted from assistants to associate professors of textiles and weaving, respectively; **T. D. Efland** to assistant professor of knitting; and **L. H. Jameson,** to assistant professor of textiles, at Clemson College, Clemson, S. C.

Jack Balloul, weaving superintendent, Bruck Mills (Australia) Ltd, Wangaratta, Vic., Australia, is returning to the United States upon the expiration of his contract. The re-

F. Gordon Cobb

F. Gordon Cobb, 72, well known retired textile executive and consulting editor of TEXTILE INDUSTRIES for a number of years, passed away in Charlotte, N. C., July 29. For the past six years he had made his home in Miami, Fla.

His mill connections were with Pelzer Manufacturing Company, Merrimac Manufacturing Company, Inman Mills, F. W. Poe Manufacturing Company, and Springs Cotton Mills, all in executive capacities. Following his retirement from active mill positions, he conducted research work at N. C. State College and was often sought in consulting capacities.

For over thirty years he had been a regular contributor to TEXTILE INDUSTRIES or its predecessor, "Cotton." Mr. Cobb was active in the Southern Textile Association for many years, serving in the capacity of chief executive for a term. He also played an important part in promotion of the Southern Textile Exposition.

Throughout his entire career he unselfishly passed along to younger textile men the benefit of his experience.

Mr. Cobb is survived by two sons, Joe C. Cobb of Pacific Mills, Lyman, S. C.; James O. Cobb, LaFayette, Ga.; and his wife.

"...add a pinch OF DOW CORNING ANTIFOAM A"

Just a pinch of Antifoam A kills foam in textile sizes without hampering the wetting action of the size itself. It's effective in gelatin, starch or casein, in concentrations as low as 0.002 ppm.

That kind of performance is why you'll find that this remarkably effective silicone is the most economical defoamer you've ever used. Bland and non-inflammable, its high order of chemical and thermal stability prevents it from contaminating or reacting with most foaming media.

Easily dispersed in a wide variety of solvents, Antifoam A is effective in most aqueous foaming systems. Where solvents cannot be used, specify Antifoam A Emulsion. Containing 30% Antifoam A by weight, this stable, easily dispersed suspension may be introduced directly without the use of carrying agents.

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Dept. No. CL-21, Midland, Mich.

Please send sample of ( ) Antifoam A
( ) Antifoam A Emulsion

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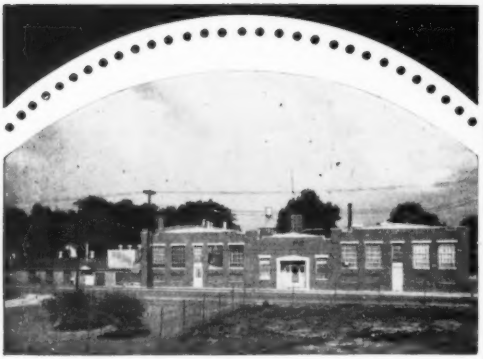
DOW CORNING CORPORATION
Midland • Michigan



Built on Customer Confidence

It takes more than men and machines and technical knowledge to produce a traveler that consistently meets the highest quality standards. It takes an appreciation of our customers' needs, plus a sense of responsibility in our contribution to his continued growth and success.

SPACE 121-A
Southern Textile Exposition
Greenville, S. C.
October 6-11, 1952

CARTER TRAVELER COMPANY
DIVISION OF
A. B. CARTER, INC.
GASTONIA N. C.

REPRESENTATIVES

R. A. Haynes, Special Representative,	114 W. Fifth Ave., Gastonia, N. C.
W. L. Rankin	501 S. Chester St., Gastonia, N. C.
P. L. Piercy	128 Hudson St., Spartanburg, S. C.
J. R. Richie	3014 Lewis Farm Road, Raleigh, N. C.
J. W. Brown	P. O. Box No. 560, LaGrange, Ga.
J. K. Davis	P. O. Box No. 129, Auburn, Ala.
Hugh Williams & Co.	47 Colborne St., Toronto 1, Canada
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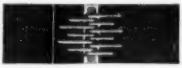
10 TIMES FASTER THAN STITCHING!

SPINDLE TAPE LACING EQUIPMENT

Lace spindle tapes 10 times faster with Clipper No. 25 Spindle Tape Hooks. Tapes can be prepared in advance so frame is shut down only long enough to place new tape on the pulleys and join ends with connecting pin. Tapes run true—last longer—run smoother—require less tension—VIBRATION IS ELIMINATED

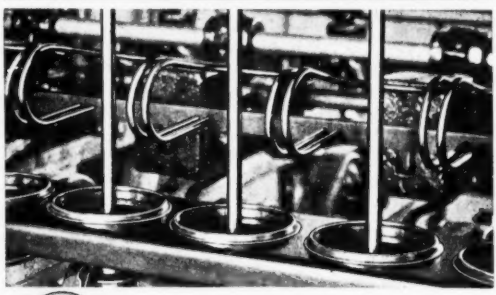
CONDENSER TAPE LACING EQUIPMENT

Lace condenser tapes with Clipper No. 25 Condenser Tape Hooks. Clipper laced tapes, prepared in advance, can be installed in a fraction of the time required for endless tapes. Tape may be purchased in the roll at considerable saving.



CLIPPER BELT LACER COMPANY, GRAND RAPIDS 2, MICHIGAN

Clipper BELT LACING EQUIPMENT UL



G-C —TWISTER RING GREASE... 40% Higher Melting Point

Laboratory tests prove G-C Twister Ring grease doesn't melt at temperatures 40% higher than other greases. Regular mill users find it stays in rings up to 40 hours and longer. No throw-offs, no staining, no clogging. Even distribution, complete lubrication. Used for twisting any yarns. *SAMPLE GLADLY SENT ON REQUEST*

GEORGIA-CAROLINA OIL COMPANY
Quality Lubricants G-C *Since 1919*
MACON GEORGIA

Non-melting oils for top rolls, comb boxes, looms and motors. Ben Boy non-melting greases for dry cans, slashers, calenders, dryers.

Report of Research on Water Resistant Textiles

Now available from the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., is Textile Series Report No. 37 entitled "Quartermaster Research on Water Resistant Textiles." Prepared by the staff of the Harris Research Laboratories (based on work done at the Harris laboratory, and also at the Quartermaster Research and Development Laboratories, the Quartermaster Board, the Institute of Textile Technology, and the National Bureau of Standards), the report represents a summary of Quartermaster research in the field of water resistance of textiles carried out during World War II and in the period that immediately followed.

The program included investigations of the physics of wetting; study of the effect of fabric structure and geometry on the water resistance of textile materials; investigations of the mechanism of water repellency with special emphasis on the study of treating systems and the durability of water repellent agents; study of the influence of garment design on protection from rainfall, including analysis of the double layer principle; and the development of test methods for predicting the performance of water resistant fabrics under field usage conditions.

Results of Research. Nozzles which duplicated natural rainfall were developed. The rain room and rain course established as a result of this development are said to have facilitated the design of a large number of fabrics of superior water resistance. Use of the rain room also permitted a more exact evaluation of the effect of structure on the resistance to penetration and absorption of textile materials, the report indicates. These data led to the revision of previous concepts and the formulation of new concepts regarding the design of water resistant materials which may lead to further improvements in the future.

Study of factors affecting the durability of water repellent agents has led to specific improvements in application technology, it is stated, and to the development of improved laundering procedures to maintain the effectiveness of the water repellent fabrics in use.

Considerable progress is also noted in the design of water repellent garments.

turn trip is being made by way of the Far East, Middle East, Europe, and England, with stop-overs planned at various mills, institutes, and research organizations as agent for American interests.

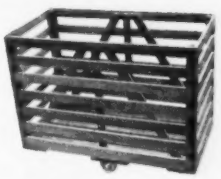
The Textile Education Foundation issued its first scholarships to the Georgia Institute of Technology to **James E. Haynes**, Manchester; **Homer D. Moody**, Greensboro; and **Thomas G. Ellington, Jr.**, Thomaston, Ga. Each scholarship amounts to $1,000 per scholastic year for each of the four years, provided the student remains eligible.

The American Thread Co. has announced the appointment of **Walter Saturday** as assistant superintendent of the Tallapoosa plant. **Frank Jenkins** has assumed Mr. Saturday's former position as twister room overseer.

C. N. Wallace, Jr., was recently appointed manager of Stevens Manufacturing Research, J. P. Stevens & Co., Inc. He succeeds A. E. Winslow, resigned. In the Dunean Group, **John M. Bean, Jr.**, has been made director of personnel relations, following the resignation of John E. Toole, Jr. **John R. Mullikin** is personnel manager for the Apalache, Greer and Victor, and Monaghan plants. **James L. Hill** has been transferred to the Monaghan plant as employment manager, and **Fred Snoddy** is now employment manager of the Victor plant. **Frank W. Walsh** has been appointed superintendent of the Clemson plant of Utica and Mohawk Cotton Mills division, and **P. W. Nipper**, superintendent of the Jonesville Mills division.

Kenneth B. Cook recently resigned as vice-president and general manager of Crown Manufacturing Co. His duties as general manager have been taken over by **Albert H. Schumacher**, vice-president and general manager

EXCEL



No Rust...
No Snagging
With Excel #600
Slatted
Conditioning
Trucks

Brass screws and cadmium plated bolts eliminate any possibility of rust. Because they are fastened from the outside they also insure against snagging. The Excel No. 600 is constructed of highly polished cypress or maple and finished with two coats of heat and acid resistant Tropelite to form a durable snag-proof surface. Slatted sides, ends and bottom permit perfect saturation and drainage.

Casters are securely bolted to bottom of truck.

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Mr. N. W. Eurey.....Lincolnton, N. C.
Mr. Paul Eurey.....Lincolnton, N. C.
Industrial Suppliers, Inc.
La Grange, Ga.
Fall River Mill Supply Co.
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EXCEL

Textile Supply Co.

"Excel Trucks Excel"

LINCOLNTON, NORTH CAROLINA

Uniform Quality

Complete Stock

Quick Service

TON-TEX *for* BELTING

- Loom Harness Strapping
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- Mechanical Specialties
- Ve-E-zy Segmatic V-Belting
- Lapless Endless, Spinner, and Coner Belts
- Licker-in and Doffer Belts

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Builders of

CLOTH ROOM MACHINERY

Since 1831

FOR COTTONS, RAYONS, ETC.

To mention a few:

Type CMR Shearing Machines
4-6 or 8-Roll Vertical Brushing Machines
Single Tier or 3 Tier Scrays
Uni-speed Inspecting Machines for Rayons
Gearmotor Driven Inspecting Machines for Cottons
Duplex Sewing and Winding Machines
#55 Railway Sewing Machines
Cloth Folding Machines
Type DS Rolling Machines
Catalog No. 7-51 describes them

Booth #202 Greenville Show, Oct. 6-11

Main Office & Plant: 72 Cambridge St., Worcester 3, Mass.
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Curtis & Marble
MACHINE COMPANY
WORCESTER, MASSACHUSETTS

Dismantling Crating & Shipping

All Kinds Textile Machinery

24 Years Satisfying Owners

We'll handle all of the machinery in your mill, or as few machines desired . . . shipping them to any designated place in the U. S. or Canada, or prepared for export . . . rendering expert service built up over a period of 24 years.

Our development of a "Floating" Technique eliminates practically all breakage of equipment from sudden shocks during shipping.

We do everything but re-erecting at destination, supplying all labor, material and necessary insurance. We will gladly discuss your problems with you without obligation. Call or write

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SCHERR MAGNI-RAY — THE ILLUMINATED MAGNIFIER

Oblique rays make scratches and defects stand out clearly. Genuine optical glass lenses. Heavy adjustable base. Indispensable for inspection and for working on minute parts. Long focal distance easy on the eyes.

WILDER PROJECTOR — THE MICRO PROJECTOR WITH THE VERTICAL DESIGN

Horizontal stage—no clamps needed—comfortable inclined screen—micrometer cross-slide adjustments

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FIT BETTER—WEAR LONGER

Precision-Built Kentex Aprons made to any specifications, on short notice. Write for free samples and prices. We are world's largest manufacturers of genuine leather textile aprons.

KENTEX TRADE-MARK REG. APRON

TEXTILE APRON COMPANY

EAST POINT, GEORGIA

Hugh Williams & Company, Toronto Canada—Canadian Representative

Personal NOTES ABOUT MEN YOU KNOW

of Lippitt Worsted Mills, division of Crown. **Richard Stoehr** has been appointed assistant to Mr. Schumacher and resident manager of the Pawtucket plant.

Fred E. Sturmer was recently elected vice-president in charge of sales of Hanes Hosiery Mills Co., Winston-Salem, N. C., succeeding James D. Maver, resigned.

John D. Rollins has succeeded R. A. Morgan as general manager of Gold-Tex Fabrics Corp., Rock Hill, S. C.

Ralph K. Hubbard, president of Lowell Textile Institute's Alumni Association and head of Packard Mills, Inc.; **Sydney P. Munroe,** Hesslein and Co.; and **James G. Pottinger,** Reliance Manufacturing Co., recently received awards of honor for outstanding service to the Association. Honorary Alumni memberships were presented to **Dr. Walter J. Hamburger** of the Fabric Research Laboratories, Inc., and **Nathaniel M. Mitchell,** textile engineering consultant. Honorary degrees of Master of Science were presented to **General Georges F. Doriot,** president of the American Research and Development Co.; **William D. Appel,** chief of the textile section of the National Bureau of Standards; **Francis P. Madden,** Boston fabrics distributor; **Harry Reimer,** editor of the "Daily News Record"; and **Laurence F. Whittemore,** president of the Brown Paper Co.

Charles H. Burns, formerly with Price Waterhouse and Co, has joined Fulton Bag & Cotton Mills, Atlanta, Ga., as controller.

Kyle T. Alfriend, formerly with Dan River Mills, is now sales manager at Profile Cotton Mills, Jacksonville, Ala.

Endel Lee Ramey was recently promoted to vice-president in charge of manufacturing at Inman and Riverdale Mills. **James A. Chapman, Jr.,** former superintendent at Riverdale, has been promoted to manager. **J. C. Boyce** is now superintendent at Riverdale.

After 50 years of service with the American Woolen Co., **Benjamin Babb,** Andover, Mass., has retired from the Shawsheen Mill.

Harry H. Burton was recently elected a vice-president of Textron Inc. as well as a director and a member

if your weaving operation is on this list . . .

- Bedspreading
- Corset Fabric
- Cottons
- Damasks
- Duck
- Elastic
- Fibre-glass
- Flannels
- Novelty Fabrics
- Rayons
- Silks
- Terry Towelling
- Tie Silks
- Upholstery
- Woolens
- Worsteds

you need individual selvage

TRIM MASTER

You will trim selvage threads faster and cut your inspection costs with the Individual Selvage Trim-Master. Can be installed easily adjacent to any standard inspection frame or winding device. Close up above shows Trim-Master head past which cloth flows.

Improve your trimming operation today. Investigate the Individual Selvage TRIM-MASTER. Write, phone or visit.

GINSBERG MACHINE CO., INC. 224 Fifth Ave., New York 1, N. Y. • OR 9-1700

Sole International Distributor For Textile Trimming & Boarding Machine Co., Inc.

SULPHUR-DIOXIDE

HIGHEST QUALITY

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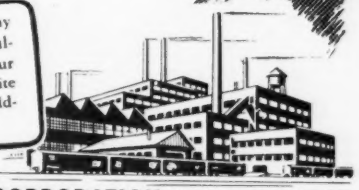
TC TENNESSEE CORPORATION

The chemical with so many uses, Tennessee Liquid Sulphur Dioxide is now available in Cylinders, Ton Drums, Truck Tanks and Tank Cars. The Tennessee Corporation, producers of highest quality Sulphur Dioxide, is located in the textile producing area, assuring closer contact, faster and more efficient service.

Let us consult with you on the many uses of Sulphur Dioxide. Perhaps Sulphur Dioxide can solve some of your problems . . . 'phone, wire or write Tennessee Corporation, Grant Building, Atlanta, Georgia.

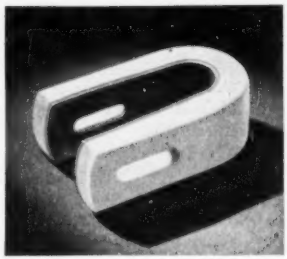


TC TENNESSEE CORPORATION

619 Grant Building, Atlanta, Georgia

PICK ARM LUG STRAP — Another Fine Rice Dobby Product

HARRIS "Heavy Duty" Lug Strap
Leather and Fibre Adjusting Strap
Special Braided Loom Cord
"Wirecore" Loom Cord
Improved Dobby Bars
Dobby Pegs



You Always Receive Service and Quality from

RICE DOBBY CHAIN CO.

Millbury, Massachusetts

Southern Representatives: R. E. L. HOLT, JR. ASSOCIATES, INC., Jefferson Building, Greensboro, North Carolina

Weave Mills that Require
ASBESTOS FILLING
Rely on
LAZENBY WINDERS

For plain, metallic or reinforced asbestos yarn we can supply Cop & Bobbin Winders to produce maximum yardage and uniformity.

Send us a small supply of your Asbestos Yarn and we will wind and return with Testwind Report and Catalog.

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3106 ELM AVE. BALTIMORE, MD.

Peerless genuine CALFSKIN

Leather ROLLER COVERING AND *Long Draft Aprons*

SEND TRIAL ORDER FOR APRONS OR BOX OF ROLLERS —COMBER DETACHING, LAPPER, DRAWING, DRAW BOX, SLIP, OR SPINNING.

PEERLESS ROLLER COVERING SHOP

R. L. Woodard, Owner
438 FRAZIER AVENUE CHATTANOOGA 5, TENNESSEE
Representatives: For Long Draft Aprons
Carolina Supply Co.—Greenville, S. C.

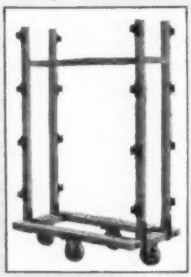


Fig. 310 Lap Truck

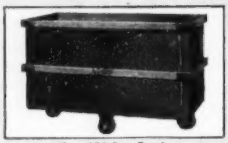


Fig. 870 Box Truck

Fig. 360 Baling Press Truck

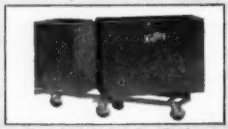


Fig. 304-A Doffing Box Truck

Fig. 88-SXRF Caster With Thread Guard

Fig. R10HDW Rubber Tired Wheel

Nutting MATERIAL HANDLING *Time Savers*

TEXTILE INDUSTRY TRUCKS AND CASTERS FOR EVERY PURPOSE

Your production program can be speeded up . . . and your handling costs reduced . . . by a properly engineered materials-handling system. Why use trucks that only approximate your needs when there's a Nutting for every purpose? More than 1,000 truck designs have been developed in the Nutting line to suit each type of work. Call in a Nutting sales engineer, and let him help you select the right equipment.

Consult the classified section of your telephone directory, or write us direct

our 61st Year

NUTTING TRUCK AND CASTER COMPANY

2303 Division Street West, Faribault, Minnesota

of the executive committee. **William Tukey** has been made manager of the Blackstone and Berkeley Mills, with **Lyman E. Main** as superintendent of the Blackstone Mill. The Lincoln Bleachery and Dye Works has **R. V. Carlson** as plant manager and **C. H. Carlson** as plant superintendent. **Winthrop Whipple** is now division manager of the Indian Head division of Textron Southern, Inc.

J. C. Pirkle is now general superintendent of Buck Creek Cotton Mills, Siluria, Valley Mills, Inc., Columbiana, and Anniston Yarn Mills, Inc., Anniston, Ala. **W. J. Spires** has been promoted to plant superintendent of Valley Mills, and **J. B. Walker** is general overseer there.

Obituaries

James R. Morrison, 53, vice-president of Morrison Machine Co., Paterson, N. J.

H. G. Mayer, 71, retired textile finishing machinery salesman, on July 29.

John Ver Hoeve, United Piece Dye Works.

W. F. Klemer, 66, Faribault Woolen Mills Co.

Kemp P. B. Lewis, 71, chairman of the board of Erwin Mills, Inc., and past president of the American Cotton Manufacturers Association, June 29.

Lammot du Pont, 71, former president of E. I. du Pont de Nemours & Co., July 24.

SUPPLIERS News

WHAT THEY ARE DOING

The annual operating and maintenance engineers classes are being held by **The Bahnson Co.** during the weeks of September 29 and October 11 at the Robert E. Lee Hotel, Winston-Salem, N. C. Classes are open to all textile firms operating or contemplating purchase of air conditioning systems, at no cost other than the expenses of men sent to attend the classes.

Wayne Lewison of **Draper Corp.** has transferred his office from Beebe River, N. H., to Hopedale, Mass., where he will be manager of the bobbin division. Sam Hall has been appointed manager of the Beebe River plant.

John Deaderick has been appointed manager of **The Foxboro Co.'s** Philadelphia office at 1621 Chestnut St.

L. Everett Taylor has been made southern manager for **National Ring Traveler Co.** His headquarters are at the firm's office and distributing depot at 131 West First St., Charlotte, N. C.

Joseph J. McGuinness has been made director of public relations and advertising at **Dexter Chemical Corp.**

The annual dinner of members of **Rice Barton Corp.** who have been with the firm ten or more years was held on June 4, with gold watches presented to the thirty-year members.

John P. Edwards and Carl I. Gochenour have been transferred from the development and research department of the sales department of **Hooker Electrochemical Co.** They are assigned to new product development work. John T. Walmsley and Frederick W. Bonacher, Jr., are now in the sales coordination office of the sales department.

William S. Lindsay has withdrawn his interest in the firm of **J. E. Sirrine Co.** The company has announced to the partnership George W. Cumbus.

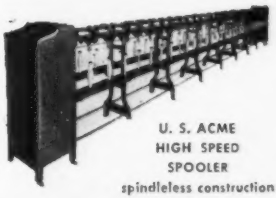
Tennessee Eastman Co. and **A. M. Tenney Associates, Inc.,** have announced their new location in offices at 260 Madison Ave., New York 16, N. Y.

David F. Edwards, president of **Saco-Lowell Shops** since 1927, has been elected chairman of the board of directors. Malcolm D. Shaffner succeeds him as president. James L.

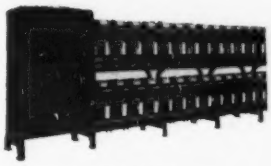
Mr. Edwards

Mr. Shaffner

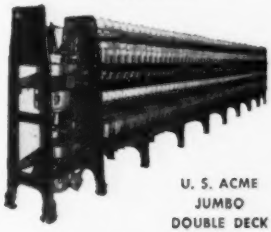
U.S. ACME
MODERN THROWING EQUIPMENT



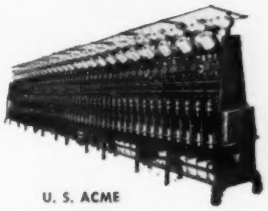
U. S. ACME
HIGH SPEED
SPOOLER
spindleless construction



U. S. ACME
FACE DRIVE TWISTER
the high speed headless
package twister



U. S. ACME
JUMBO
DOUBLE DECK
TWISTER



U. S. ACME
JUMBO
DOUBLER TWISTER

SERVICE AT THE TIME OF PURCHASE... SERVICE OVER THE YEARS!

write for
descriptive bulletins

U. S. TEXTILE MACHINE COMPANY
SCRANTON 8, PENNA.

"THERE IS HARDLY ANYTHING IN THE WORLD THAT SOME MAN CANNOT MAKE A LITTLE WORSE AND SELL A LITTLE CHEAPER, AND THE PEOPLE WHO CONSIDER PRICE ONLY ARE THIS MAN'S LAWFUL PREY." (John Ruskin)

There has never been a truer statement

AMERICAN, HICKS, WILSON, WENTWORTH DOUBLE DUTY, GRAVITY

Registered Trade Marks

ETARTNEP FINISH—New Chemical Process

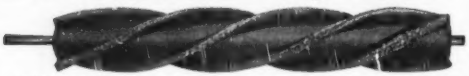
Ring Travelers for Every Spinning and Twisting Purpose

NATIONAL RING TRAVELER CO.

PAWTUCKET, RHODE ISLAND — Philip C. Wentworth, Treas.

CHARLOTTE, NORTH CAROLINA — L. Everett Taylor, Southern Manager

PEGGED *and* GLUED! BRISTLES *Stay Put*



LONGER LIFE—Spiral card brushes, refilled the Gastonia way, last from 10 to 15 years, compared with 2 or 3 years when staples are used—for STAPLES WILL NOT STAY PUT IN SOFT WOOD. Gastonia first dips the bristles and fiber in glue, then they are permanently **pegged in.**

BETTER FINISH—To prevent lint from collecting on rolls, Gastonia paints them with high-grade bobbin enamel, which dries to a hard, glossy finish.

Brushes can be refilled and returned in two days. Freight is paid one way.

JOHN T. HARRELL, MGR. PHONE 5-2422

GASTONIA BRUSH *Co.*

GASTONIA, N. C.

INDUSTRIAL *Engineers*

SPECIALIZING IN TEXTILES FOR OVER ONE-THIRD OF A CENTURY

PAYROLL CONTROLS — COST SYSTEMS

SPECIAL REPORTS — WORK LOAD STUDIES

COST REDUCTION REPORTS

RALPH E. LOPER CO.

GREENVILLE, S. C. — FALL RIVER, MASS.

Sterling Ring Travelers

CHOOSE

The favorite of the spinning and twisting rooms, because of fewer ends down.

The favorite of management, because of better work and fewer complaints.

Your Candidate—STERLING

M. H. CRANFORD, Box 204, Chester, S. C.
D. R. IVESTER, Box 882, Clarkesville, Ga.
J. S. FURTADO, Box 803, Fall River, Mass.

STERLING RING TRAVELER CO.

FALL RIVER, MASS.

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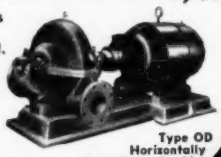

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SUPPLIERS News
WHAT THEY ARE DOING

Mr. Truslow Mr. McVey
Mr. Kiely Mr. Sears

Truslow, vice-president, has been made executive assistant to the president. New vice-presidents are Elmer J. McVey and J. Arnold Kiely; Douglas H. Sears succeeds Mr. Kiely as comptroller of the firm.

Graton & Knight Co. has announced the appointment of Jackson L. Parker as advertising and merchandising manager. Mr. Parker will direct sales promotion activities for the G & K affiliates. He was formerly connected with the Bijur Lubricating Corp.

M. E. Ziegenhagen, formerly with General Electric Corp., has joined **Worthington Corp.** as advertising and sales promotion manager.

The **Hartford (Conn.) Machine Screw Co., Inc.**, a division of Standard Screw Co., has entered the textile machine products field. A southern division for sales, engineering, and development has been established at 110 West McBee Ave., Greenville, S. C., with A. E. Winslow in charge.

James H. Oakes has been made sales manager for the Philadelphia plant of **Link-Belt Co.** Byron K. Hartman is sales manager for the new plant in Colmar, Pa.

J. M. Johns, former industrial sales manager for **Libbey-Owens-Ford Glass Co.**, is now general manager of the Fiber Glass Division. G. O. Hartzell has joined the division as sales representative in the central region.

The Georgia chapter of the American Society of Metals recently honored Robert S. Lynch, president of **Atlantic Steel Co.** with the Metalworking Southeast award for his contributions to the metalworking industry.

William A. Sipprell, Jr., formerly president of H. & B. American Machine Co., has been named president of Cleveland Welding Co., a subsidiary of **American Machine and Foundry Co.** He succeeds Harry W. Kranz, retired.

Raymond A. Norman, formerly with the southern shuttle division of Steel Heddle Manufacturing Co., has joined **Watson-Williams Manufacturing Co.** and will serve as assistant superintendent.

R. S. Stevenson has been elected executive vice-president of the **Allis-Chalmers Manufacturing Co.**, with Willis G. Scholl succeeding him as vice-president in charge of tractors. Frank Mussell has taken over Mr. Scholl's position as vice-president and general sales manager of the tractor division.

Warner Electric Brake & Clutch Co. has announced the appointment of M. C. Peterson as manager of national account sales. Mr. Peterson was formerly Chicago district manager.

James C. Jacobs and Richard B. Stevens have been added to the sales department of **Steel Heddle Manufacturing Co.** Mr. Jacobs will work out the firm's Atlanta, Ga., plant and Mr. Stevens' headquarters will be at Greensboro, N. C.

Mr. Jacobs Mr. Stevens

Minneapolis-Honeywell Regulator Co. has announced the following appointments as regional industrial sales managers: Jack E. MacConville, the Southeast with headquarters in Atlanta; Alfred J. McCullough, Central, headquarters in Cleveland; Howard L. Marston, Northwest, Minneapolis;

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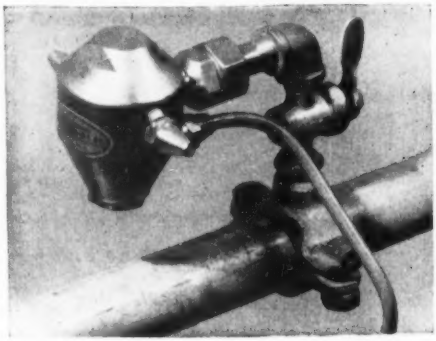

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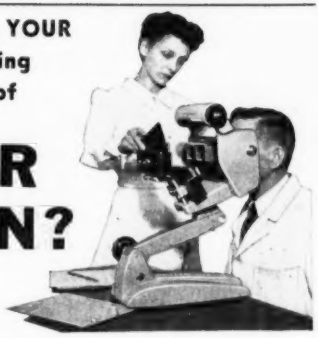

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PPLIERS News
WHAT THEY ARE DOING

Robert L. Mallory, Southwest, Dallas; Robert B. Grant, Pacific and Mountain, Los Angeles; and Lester W. Williams, Pacific Northwest, Portland.

W. R. Peacock has been added to the sales staff of **Sonoco Products Co.** His territory comprises Alabama,

Mr. Peacock

Arkansas, Oklahoma, Texas, Mississippi, Louisiana, and a portion of Tennessee, with headquarters in Birmingham.

Dr. George S. Bachman is now director of research for the fiber glass division of **Pittsburgh Plate Glass Co.**

Woonsocket Color & Chemical Co. has announced the appointment of Amos K. Hobby as chemist in the firm's chemical research laboratory. He was formerly associated with Merck & Co.

V. Wellborn Cook has joined the **American MonoRail Co.** as sales engineer, working out of the Charlotte,

Mr. Cook

N. C., office and handling the territory of North Carolina. Mr. Cook was previously connected with SKF Industries, Inc.

E. C. Medcalf has been appointed to succeed the late Q. T. Dickinson as head of the coal tar chemicals department, Calco Chemical division, **American Cyanamid Co.** He has been with the firm since 1933.

Selig Co. of Texas, a subsidiary of **The Selig Co.,** Atlanta, Ga., has moved into a new 15,000 sq ft. building at 147-151 Pittsburgh, Dallas, Texas. Henry B. Siegel is manager of the Texas corporation.

Dr. John B. Miles has been named textile development engineer for the research and development department of **The Chemstrand Corp.**

The **Atlanta Envelope Co.** recently moved into its new 75,000 sq ft building at 1700 Northside Drive, Atlanta, Ga. Designed around a circular flow chart for mass envelope production, the building has a rubber-tiled cantilevered ramp spiraling up from entrance to reception room, eliminating the need for both elevator and stairs. Glazed tile construction, inside and out, cuts maintenance, virtually eliminating painting and plastering.

A centralized sales office has been opened in the South Carolina National Bank Building, Greenville, S. C., by **U S Bobbin & Shuttle Co.** Carroll A. Campbell, formerly with New York

Mr. Campbell

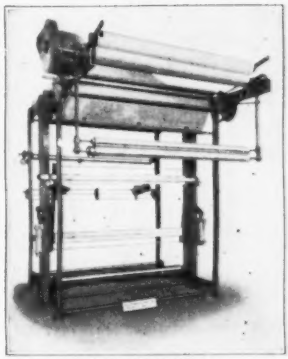
Mr. Aiken

& New Jersey Lubricant Co., has been appointed southern manager in charge of all southern sales operations. Frank Aiken has been made executive engineer, and after spending several months at the company's main plant, will make his headquarters in Greenville.

Fifty-year membership certificates were recently awarded by the **American Society for Testing Materials** to Sherwin-Williams Co., Ajax Metal division of H. Kramer and Co.; E. L. Conwell and Co.; International Harvester; Jones & Laughlin Steel Corp.; Lukens Steel Co.; and Standard Steel Works division of Baldwin-Lima-Hamilton Corp.

New appointments at **Barber-Colman Co.** are: Fred D. Taylor, manager of the Greenville, S. C., office, succeeding John H. Spencer, retired; Lester L. Lideen, to Mr. Taylor's position as manager of the Framing-

SOUTHERN TEXTILE EXPOSITION, OCT. 6 SPACE 247



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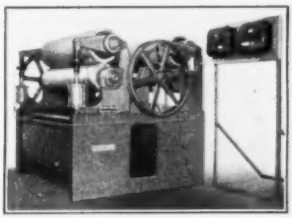

New Tandem Mangle combines water and starch mangle in one unit. Machine is roller bearing with stainless steel or brass bottom rolls and top rubber rolls. Pressure is applied by air cylinders and the machine is fitted with gauges to insure uniform and the desired pressure.

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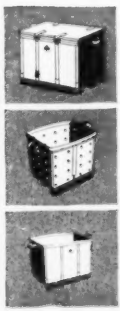

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South American Wools Increase Medium Apparel Wool Supplies Only 17%

The release of the 1951-52 wool surpluses in Argentina and Uruguay, which are indicated by recent announcements of revised currency exchange arrangements and other export controls, will add approximately 17% to the forthcoming 1952-53 clip of apparel type medium grade wools only, The Wool Bureau stated recently in an analysis of world wool supply-demand outlook.

Less than 50% of the combined surplus of 600 million grease pounds of wool now available in South America is appropriate for apparel fabrics. Only a moderate percentage of these apparel wools conforms to standards of quality and types which are demanded by American wool textile manufacturers.

Fine wools of Merino grades are virtually non-existent in the South American surplus, the Bureau declared. The only new source of supply for these wools, of which the United States is the largest single user, will be the 1952-1953 world wool clip. Production of the bulk of these wools is confined to the British Dominions and the United States.

Large Carpet Wool Surplus. Carpet wools comprise more than 300,000,000 grease pounds of the South American surplus. The sale of these wools at stabilized prices will undoubtedly increase the use of wool in carpet mills, the Bureau states.

The orderly distribution of the medium grade apparel wools contained in the South American surplus will be a welcome addition to existing supplies of wools because, as the year advances, world supply and demand are coming more closely into balance. The world is now entirely dependent upon current clips of wool, and existing trade stocks in the hands of dealers and manufacturers must be at an almost historical low point.

Outlook for 1952-53 Wool Clips. Preliminary indications of conditions in the chief wool supplying countries suggest a world apparel wool clip for 1952-53 of approximately 2,270,000,000 pounds which is 20,000,000 pounds less than the clip of 1951-52, according to the Bureau. Of this total fine and medium crossbred wools will amount to approximately 1,125 million pounds on a clean basis. Merino wools, mostly combing types, will probably be slightly in excess of 700,000,000 pounds on a clean basis.

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SUPPLIERS News — WHAT THEY ARE DOING

ham, Mass., office; William P. Turner, to the main office as export sales manager; Ralph W. Cotta, to the Framingham office as sales engineer for textile machinery; K. C. Morrison, from Framingham to the door division, with responsibility for the sales and manufacture of overhead type doors and electric operators in New England.

Reliance Electric & Engineering Co. has appointed the following engineers to the district sales offices: James McCrea Biggar, Cleveland; Burton B. Finigan, New York; Walter A. Jensen, Buffalo; William C. Prettyman, Central Western. Each has been with the company approximately two years.

The Fiber Glass Division of **Libbey-Owens-Ford Glass Co.** has opened a

Mr. Smart

district sales office in Boston, with Hilary H. Smart as manager.

"Information at Work," a 30-minute, full-color film on instruments

SUPPLIERS News
WHAT THEY ARE DOING

put out by the **Taylor Instrument Co.**, is available without charge through the public relations department of the firm at Rochester, N. Y.

Jay S. Gosnell has joined **American Lava Corp.** as northern and eastern textile sales representative on AlSi-

Mr. Gosnell

Mag thread guides. His headquarters will be at the firm's offices at 671 Broad St., Newark, N. J.

Frank J. Matte has been made supervisor of textile development sales, and John O. Cushing, sales engineer, for **SKF Industries, Inc.** Mr. Cushing will cover southern textile developments.

A new plant for manufacture of polyvinyl alcohol has been opened by **The Colton Chemical Co.**, Cleveland, Ohio. The new four-story building incorporates the latest development in vertical flow and airveying systems.

Trinacria Specialty Manufacturing Co., Norwich Conn., has purchased 21 acres of land near Simpsonville, S. C., for construction of a plant to manufacture mill specialties and parts.

T. V. Monahan, assistant treasurer **Rohm & Haas Co.**, has been appointed chief of the chemicals branch of the rubber, chemicals, and drugs division, Office of Price Stabilization, Washington, D. C.

John Conway, J. A. Field, and W. A. Woodcock have been made assistant managers in the fine chemicals division of **Union Carbide and Carbon Corp.** In the Carbide and Carbon Chemicals Co. division, Richard S. Brissette has been appointed technical representative for textile fibers in the New England area; Hugh L. Carolan, fiber advertising and promotion in the firm's New York office; Roger A. Lewis, dynel production and operating department at South Charleston, W. Va.; and Robert A. Simmons, development service laboratory at South Charleston.

Cutler-Hammer, Inc., has announced the appointment of H. B. Phillips as sales manager, quantity sales division; F. A. Wright, manager, district sales; and J. M. Cook, sales manager, industrial control divisions.

Warren B. Reese has been made

Mr. Reese

general sales manager for **Macbeth Corp.** and its subsidiaries.

L. C. Morris has been elected a vice-president of **Union Special Machine Co.** and will continue as head of the

Helpful Tips On Mill Upkeep 355-356 **Yours at BOOTH 355-356**

Southern Textile Exposition
Greenville, S. C., October 6-11

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firm's export sales. Marion O. Moulton has been transferred from St. Louis to the Atlanta office as assistant manager; and Z. X. Bennett, former assistant manager, will have that position in St. Louis.

A research and product development department has been created by **Graver Water Conditioning Co.**, under the direction of Vincent J. Calise. Marvin Lane has been made technical manager. The firm's customer-service department is now headed by William J. Lewis.

Carbomatic Corp. has moved its factory and offices to 70 Bennington Ave., Freeport, L. I., New York.

Some Highlights of Southern Textile Exposition History

(*Continued from page* 146)

electric harness warp stop motion, operated exclusively by the heddle mechanism, and eliminating all drop wires. The heddle is designed to be drawn in by a new drawing-in machine now under construction. . . .

"Cotton" for November, 1932, page 37

11th Southern Textile Exposition

(April 8-13, 1935)

The 11th Southern Textile Exposition, scheduled for the week of October 15 . . . was postponed until April 8 to 13 as a result of the unsettled conditions in the industry incident to the strike in September. . . .

"Cotton" for October, 1934, page 60

. . . A new rule prohibiting children under 16 years of age, for example, together with announcement that only on Monday and Saturday was the general public invited, removed the inconvenience of mobs of curious but wholly uninterested crowds which in the past have confused and complicated the true function of not only this exposition but of all others designed to serve a particular industry and then thrown open to milling throngs of school children and souvenir hunters. . . .

. . . Another feature of definite value to exhibitors was the use for the first time of different-colored lapel buttons to identify the various classifications of mill men. The exposition management supplied these buttons, carrying the monogram of the exposition, to all mill men —a gray button indicating its wearer as occupying an executive position above that of superintendent; with superintendents wearing blue buttons; overseers green buttons; master mechanics orange buttons, etc. This feature . . . achieved surprising interest and value which will no doubt increase with its further use in the future. . . .

. . . the postponement of the exposition until the spring of the year met with the unqualified approval of a majority of the exhibitors. An informal canvass among a large number of exhibitors and mill men indicated an overwhelming preference that, if practicable, the schedule now be changed so that the Greenville Show will be held regularly in the spring instead of in the fall. . . .

"Cotton" for May, 1935, page 43

. . . . the green and blue buttons of operating executives were preponderantly in the majority. . . .

"Cotton" for May, 1935, page 44

. . . The practice of sending observers [from the U. S. Patent Office], already familiar with the theory of the textile art, to study the latest commercial practices is a most practical contribution to all phases of textile manufacturing. It is bound to result in better understanding of mutual problems between the Patent Office and the manufacturers of textile machinery, and this will be followed by greater advances in manufacturing processes which will benefit the mills and the general public.

"Cotton" for May, 1935, page 48

12th Southern Textile Exposition

(April 5-10, 1937)

. . . The national scope of the exposition is indicated by the presence of a large number of New England and Middle West textile manufacturers; one group, from the Goodall Worsted Mills in Maine, flew to Greenville in a chartered plane. Its international recognition was demonstrated by the presence of several buyers for the Russian

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textile syndicate, and by a visit on Wednesday by a group of more than 50 German textile engineers, instructors, and students, who planned the schedule of a trip to this country to embrace a day at the Greenville Show. . .

. . . A significant development . . . was the reception accorded a suggestion from one faithful exhibitor that the hours of the exposition be changed from the schedule of 10:00 A.M. to 10:00 P.M., to a schedule of from 9:00 A.M. to 7:00 or 8:00 P.M. . . .

"Cotton" for May, 1937, page 74

13th Southern Textile Exposition
(April 3-8, 1939)

. . . . Unanimous approval of the new, shorter hours for the exhibit was obvious. This year's show operated on a schedule under which the show closed nightly at 9:00 P.M., instead of 10:00 P.M. as in the past . . . The show opened this year a half-hour earlier each day than usual, at 9:30 A.M., instead of 10:00 A.M. as in the past. . . .

"Cotton" for May, 1939, page 73

14th Southern Textile Exposition
(March 31-April 5, 1941)

. . . Circumstances gave this year's Show particularly effective timing, with practically every unit in the industry enjoying full and overtime operation, putting the financial and operating executives in a receptive attitude for considering new and improved equipment and supplies. . . . In some quarters, apprehension that the extreme activity in the industry might tend to reduce attendance at the show had been apparent. To the contrary, the effect seemed to be to spread the mill attendance more generally throughout the week instead of its being concentrated within two or three big days. . . .

"Cotton" for May, 1941, page 180

15th Southern Textile Exposition
(October 4-9, 1948)

. . . A show was planned for 1946, but it was cancelled because of the critical housing shortage and transportation facilities.

"Textile Industries" for September, 1948, page 135

. . . Visiting mill men and exhibitors declared the 15th Southern Textile Exposition to be an unqualified success. . . .

"Textile Industries" for November, 1948 page 215

16th Southern Textile Exposition
(October 2-7, 1950)

. . . Although another textile exposition had been held earlier this year at Atlantic City, the southern show provided the opportunity for various levels of management to attend from nearby areas. . . . Some criticism was offered by exhibitors because of local young people and souvenir hunters arriving from the Greenville area in the afternoon. However, it was pointed out that no one was permitted to enter Textile Hall without a ticket on which the name of the entrant was written; since most of the tickets were distributed by exhibitors, the entrance of the souvenir hunters appeared to stem back to the ticket distribution by the distributors themselves. . . .

The 16th exposition had the largest number of exhibitors ever to display their wares at the Southern Textile Exposition, and a new annex to Textile Hall provided additional floor space to take care of more booths.

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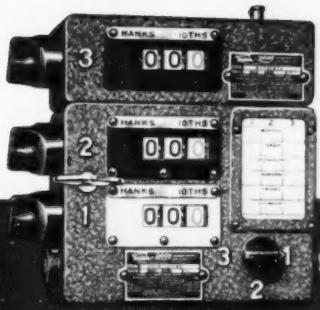

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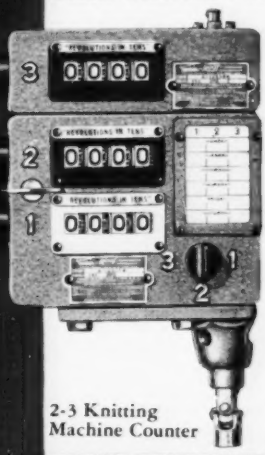

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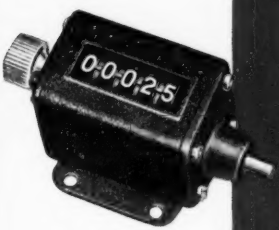

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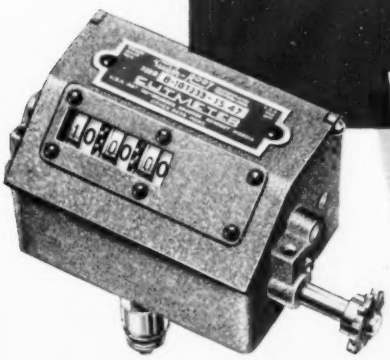

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